

Practical Boat Owner®

MAINTENANCE · PROJECTS · GEAR REVIEWS · SEAMANSHIP · CRUISING

THE GREAT UK ANTIFOULING SHOWDOWN

This season we tested 20 paints in 13 locations around Britain: which works best where you keep your boat?



How to fit new portlight seals



How lifejackets are made and tested



Fitting an alternator and fixing a solar panel

PLUS Cruising the Argolic and Saronic gulfs

WINTER ON THE WATER

Tips to extend your sailing season

IDENTIFY CETACEANS

How to tell your killer whales from your harbour porpoises



The Bavaria story

Peter Poland looks at key models in the company's development



VHF MARINE TRANSCEIVER

IC-M25EURO

BUOYANT, STYLISH AND EASY TO USE

COME SEE OUR LATEST EXCITING HANDHELD VHF!



London
Boat
Show

08
~17
JAN
2016

**STAND
C017**



Since the late 70s, ICOM have been innovating, developing and supplying the world's best marine radios. All backed-up by our world-famous advice and after-sales services. Visit us at the show to see exactly what we mean.



Slim, Lightweight, High Performance



USB Charging (Micro-B USB type)



11 Hours Operating Time
(Typical operation with Tx (Hi): Rx: Standby = 5:5:90)



Large LCD and Simple User-Interface



Buoyant with Flashing Red LED



Optional Speaker Microphone

ICOM-UK

Blacksole House, Altira Park, Herne Bay, Kent CT6 6GZ. UK.

Telephone: +44 (0)1227 741741 Fax: +44 (0)1227 741742 e-mail: info@icomuk.co.uk website: www.icomuk.co.uk

Count on us!

PBO Contents

Welcome to the January 2016 issue

**SAVE
MONEY AND
SUBSCRIBE!**
Great offers on
pages 38-39

REGULARS

- 5 Waiting for the tide**
The editor's welcome to this month's PBO
- 6 News**
Portable generators warning, DIY antifouling survey meeting date... and more
- 10 Regional news**
Visitor berth plans for Oban, Royal Dee Yacht Club bicentenary... and more
- 12 Readers' letters - your views**
- 14 Dave Selby**
Gracing us with their presents
- 16 Sam Llewellyn**
Assume the recovery position
- 18 Andrew Simpson**
Is seeing believing?
- 45 PBO products and services**
Books and plans from the PBO Shop
- 60 Ask the experts**
Dismantling sheet winches, adding ballast to a 5.5m (18ft) day boat, plus more reader queries answered

GEAR

- 27 The great UK antifouling showdown**
This season we tested 20 paints in 13 locations around Britain: which works best where you keep your boat?
- 54 New gear**
PBO looks at the latest marine products

BOATS

- 20 The Bavaria story**
A look at key models in the German firm's boatbuilding history
- 72 Trailable, sailable, saleable**
The Kite and RTC 22

SEAMANSHIP

- 52 The jury's out!**
Improvising a jury rudder from a headboard
- 65 Winter on the water**
Tips to extend your sailing season
- 82 Warp factor nil**
Calamity for the want of a boat hook

CRUISING

- 40 A Saronic and Argolic odyssey**
Cruising the Saronic and Argolic gulfs
- 78 Identify cetaceans**
How to tell your killer whales from your harbour porpoises
- 94 Canny Canna**
A handy stop-off en route to or from Skye

LIFEJACKETS

- 88 How lifejackets are made and tested**
A visit to the SeaSafe factory for the company's golden anniversary year

BOAT SHOWS

- 82 London Boat Show 2016**
Highlights to look out for at this year's show

PRACTICAL

- 36 Fitting an alternator...**
...and fixing a solar panel
- 46 How to fit port light seals**
Replacing the old, perished rubber
- 49 Living the high life?**
Trials, traumas and triumphs of living aboard in New Zealand boatyards
- 70 Replacing hull fastenings...**
...without damaging the plank
- 77 Filling a grease gun**
A clean and efficient method
- 86 Condenser cooling in the Med...**
... and keeping boat bedding aired, PLUS more reader projects and tips
- 106 Supporting your back on the boat**
Hints and tips from the PBO Sketchbook



46 How to fit port light seals



Cover photo: Holman Sterling Sterlet at Itchenor piles. Gary Blake



20 The Bavaria story



40 A Saronic and Argolic odyssey



36 Fitting an alternator



VARIANTA 37



37 **VA**

44 **VA**²

MAXIMUM FUN FOR MINIMUM INVESTMENT

Pick up details of the Varianta range on the Hanse Stand at the London Boat Show Jan 8 - 17 2016

Inspiration Marine Group Ltd.
 Southampton | +44-2380 455 741
 Scotland | +44-1475 522 515
 Windermere | +44-1539 447 700
 contact.us@dehler.co.uk | www.inspirationmarine.co.uk



WWW.VARIANTA.INFO

CONTACT PBO EDITORIAL

By email: pbo@timeinc.com

Via our website: www.pbo.co.uk

By post: PBO, Time Inc. (UK) Ltd, Westover House,
West Quay Road, Poole, Dorset BH15 1JG

By phone tel: +44 (0)1202 440820

By Fax: +44 (0)1202 440860

Editor
Editor's PA
Deputy Editor
Art Editor
Production Editor
News Editor
Contributing Editor
Technical Illustrator
Charts and maps
Publishing Director
Managing Director

David Pugh
Roz Jones
Ben Meakins
Kevin Slater
Marco Rossi
Laura Hodgetts
Sarah Norbury
Graham Smith
Krystof
Simon Owen
Oswin Grady



Waiting for the tide



with the editor

To receive the editor's monthly email newsletter, sign up on our website: www.pbo.co.uk

ARTICLE SUBMISSIONS

When submitting letters, practical projects or other articles please include hi-res digital images. Please include your name and full postal address. The editor reserves the right to shorten or modify any material submitted. Time Inc. (UK) Ltd and/or its associated companies reserve the right to re-use any submission in any edition, format or medium. We cannot take responsibility for manuscripts or photographs sent in.

SUBSCRIPTIONS

Tel: 0844 848 0848 (low call rate)

Tel: +44(0)330 3330 233 (overseas)

Email: magazinesdirect@quadrantsubs.com

COPY SERVICE buy previous articles

Visit: www.ybw.com/reprints

Email: copyreport@timeinc.com. Tel: 01202 440832

BUY A BACK ISSUE

Back issues cost £6.95 each. Tel: +44 (0)1733 385170
(24 hrs). www.mags-uk.com/Publisher/TimeInc

DISPLAY ADVERTISING

Brand Manager **Michael Beattie** +44 (0)203 148 4889
Account Manager **Tom Stevens** +44 (0)203 148 4884
Account Manager **Simon Spong** +44 (0)203 148 4894
Account Executive **Chris Wilson** +44 (0)203 148 4889
Account Executive **Jamie Coles** +44 (0) 203 148 4888
Account Manager **Sam Shaw** +44 (0)203 148 4882
Digital Brand Manager **Ben Leek** +44 (0)203 148 4922
Head of Market **Stuart Duncan** +44 (0)203 148 4880
Production **Peter Burton** +44 (0)203 148 2688

CLASSIFIED ADVERTISING

To advertise Tel: +44 (0) 203 148 2001

e-mail tommy.sullivan@timeinc.com

Advertise online at www.ybw.com/buy-and-sell

MARKETING

Manager **Richard Shead** +44 (0)203 148 4283

Marketing Exec **Amy Golby** Tel: +44 (0) 203 148 4287

SYNDICATION

Senior Sales Exec **Cerie McGee** +44 (0)203 148 5476

LEAFLETS & INSERTS - INNOVATOR

Sales Exec **Mona Amarasakera** +44 (0)203 148 3710

NEWSAGENTS - TO STOCK PBO

Contact **Mike Dore** Tel: +44 (0)20 3147 9177

E-mail: mike_dore@marketforce.co.uk



To advertise on www.pbo.co.uk contact Ben Leek,
tel: +44 (0)203 148 4922, ben.leek@timeinc.com



www.twitter.com/p_b_o



www.facebook.com/practicalboatownermag

Practical Boat Owner (incorporating The Yachtsman, Yachtman & Boat, Helmsman, Practical Boating, Yachting & Boating Weekly, Yacht & Boat Owner, Boat and Yachts & Equipment) is published monthly (13 issues per year) by Time Inc. (UK) Ltd, Blue Fin Building, 110 Southwark Street, London, SE1 0SU England. Pre-press services by Rhapsody. Cover printed by Polestar Chantry. Text printed by Polestar Chantry. Blind Polyester Blister. Published every fourth Thursday. Subscription enquiries and overseas orders: Tel: +44 (0)330 3330 233. E-mail: magazinesdirect@quadrantsubs.com. Credit card hotline (9am to 5pm UK time) Tel: +44 (0)844 848 0848. Cheques payable to Time Inc. (UK) Ltd. Send UK orders and correspondence to: PBO Subscriptions, FREEPOST CY1061, Haywards Heath, West Sussex RH16 3SR (if posted in the UK) and PBO Subscriptions, PO Box 272, Haywards Heath, West Sussex, RH16 3FS, UK (if posted overseas). One year (13 issues) subscription rates: UK £59.90; Europe €123.80; USA \$123.80; North America \$174.62; Rest of World: £115.98. Check the subscription page or www.pbo.co.uk for our latest offer. Airfreight and mailing in the USA by our mailing agent Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Jamaica NY 11431. US Postmaster: Send address changes to Practical Boat Owner, Air Business Ltd, c/o Worldnet Shipping Inc. Subscription records are maintained at Time Inc. (UK) Ltd, Blue Fin Building, 110 Southwark Street, London. Distributed by: Marketforce (UK) Ltd, 5 Churchill Place, London E14. Condition of sale: this periodical shall not without the written consent of the publishers first, be given, be lent, resold, hired out, or otherwise disposed of by way of trade at more than the recommended selling price shown on the cover (selling price in Euro subject to VAT) and that it shall not be lent, resold or hired out, or otherwise disposed of in a mutilated condition or in any unauthorised cover by way of trade or annexed to or as part of any publication or advertising literary, or pictorial matter whatsoever.

A hot topic for the colder months

Antifouling is a hot topic at the moment. In our November issue we encouraged you to fill in a survey led by the British Coatings Federation which they hoped could be used to inform and rationalise potential EU legislation regarding DIY application of antifouling. They received over 2,000 responses and will call a meeting in February to discuss how to use the information gleaned, hopefully to the advantage of boat owners, so thank you to everyone that took part. We'll keep you informed.

At the same time, all the paint manufacturers are researching and releasing new technologies to reduce environmental impact and (one suspects, more to the point) to future-proof their businesses against ever-tightening legal restrictions on the use of biocides. And the third reason it's a hot topic right now is the time of year – if you're not looking at antifouling at the moment, it's not long now until you'll have finished digesting Christmas dinner, overcome the January blues and started thinking about getting the boat ready for spring.

That's why we've devoted a large slice of this month's magazine to the results of our round-Britain antifouling test. A year in the making and even longer in the planning, this brings you the results of a season's immersion of 20 popular paints in 13 UK locations. We focused on single-pot eroding paints and found some interesting results: clear regional variations in fouling and consequent variations in which paints are most effective. We've drawn our conclusions and published them for you to peruse, but all the photos we used to draw them are there too, so if you need to see how your favourite paint fared or check if the chandler's latest special offer is a good investment, you

should have the information you need.

You'll also find in this edition our London Boat Show preview page. The big news for us this year is that the show marks the end of our ownership of *Hantu Biru*; after her appearance at the show we will draw the competition and pass her to her new owners. This is your last opportunity to see the boat and to enter the competition – we hope to see you there. Serendipitously, the show organisers have given the event a 1960s theme, so *Hantu Biru* should have some boats her own age for company!

As always, this month's PBO includes plenty of winter projects, large and small. Our winter sailing feature includes a host of tips to keep sailing fun in chilly temperatures, and David Harding tests two very different trailer-sailers which, remarkably for the 21st century, are both built in Britain. And (one of my personal favourites to keep squirrelled away for the spring) we bring you an expert guide to identifying dolphins, porpoises and whales from the flip of a fin or the flash of a flank.

On shore we take a tour of the SeaSafe factory, a UK manufacturer of lifejackets who celebrate their 50th birthday in 2016. They aren't the only ones – the Contessa 26 celebrates her 50th anniversary too, which means that my brother Ben and I will be spending much of our time off working on board *Red Dragon*, getting her ready for next year and the events the owners' association have planned. She's been completely repainted, had her interior refitted and we're now considering a heater – warm springtime sailing, here we come!

As our last issue before Santa's expedition I'd like to take this opportunity to wish you all a very happy Christmas and all good wishes for the coming New Year.

Fair winds,

David Pugh

This month's PBO includes plenty of winter projects, large and small

PBO is also available on these digital platforms





News and current affairs from the world of boating



The start of the 30th ARC, with the port of Las Palmas de Gran Canaria in the background. *Arthur Logic*, the charter boat skippered by Tim Scarisbrick, powers through the waves as she heads for the start in Las Palmas

© WCC James Mitchell

The 30th Atlantic Rally for Cruisers is under way

'Boats have got bigger and faster, communications have changed and so has navigation, but the wind and the waves are still the same'

Years and months of intense planning and preparation finally paid off when the yachts taking part in ARC 2015 set sail from Gran Canaria on 22 November, bound for the Caribbean.

More than 1,200 sailors are currently mid-Atlantic on a 2,700NM journey to Rodney Bay, St Lucia that for many of them represents the voyage of a lifetime.

While 195 yachts from 27 nations make up the ARC fleet, sailing direct from Las Palmas to Saint Lucia, another 59 yachts set sail a fortnight earlier on the ARC+ rally, which includes a stop at Mindelo, on São Vicente in the Cape Verdes.

The combined total of 254 yachts represents a

record number in the 30-year history of the rally.

Former *Yachting World* editor Dick Johnson (below) recalled the success of the original ARC, when they were expecting 50 boats to participate and ended up with 204 starters.

He said: 'The boats have changed: we used to see some really rough old boats, and we did stop some from taking part.' One of the most memorable entries, he said, was a 'lovely couple with two children aged five and three, with a Nicholson 32 Mk 1 yacht. He had been a fireman in Portsmouth and she was a nurse.'

They set sail on the second ARC, with one crew with them, and halfway across the Atlantic their batteries went flat. They couldn't start the engine to recharge them so they lost all electricity. Dick

said: 'They had a bicycle on board, so they took the saloon table out and lashed the bicycle to the saloon table with the back tyre off the ground. They got an alternator off the engine and wires to extend back to the battery.'

'They wrapped the alternator in carrier bags and for three days they pedalled, holding the alternator onto the bike until they charged the batteries up enough to start the engine.'

Smallest and oldest

This year, the smallest boat in the fleet is a Hallberg-Rassy 310 called *Inua*, owned by German sailors Enno and Karin Rodegerdts who are taking a year off from their work in the medical sector. Second-smallest and 'definitely the oldest' entry is the Contessa 32 yacht *Pisces*, owned by Brit Paul Thompson who is sailing with David Everett from

Adelaide, Australia. The duo have a lot of catching up to do as they last sailed together in 1978, when they met travelling and ended up covering more than 10,000 miles.

Paul said: 'We went our separate ways. Now we're getting together to do the ARC and revisit an old thing, see if we can do it and have a bit of fun.'

Terysa Vanderloo quit her job as a paramedic and her partner Nick Fabri sold his dental practice and bought a Southerly 38 yacht specifically to do the ARC, and then to carry on with a circumnavigation.

Terysa said: 'We've been excited, nervous, going through abject terror. It's exciting, but it's the fear of the unknown. The most we've done before is three days offshore, but someone once told me if you can cruise the English Channel you can cross the Atlantic, so I'm holding onto that.'

'I'm excited, I'm ready to go, and even if it's horrific we've got the Caribbean to look forward to.'

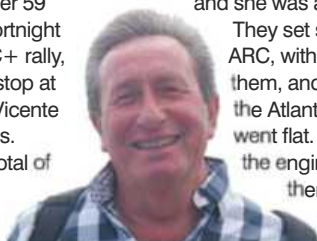
Janne Kjellman is sailing a fully electric yacht without any diesel on board, having fitted his Maestro 40 yacht, *Limone*, with his company's Oceanvolt's SD8.6 saildrive electric motor system.

Meteorologist Chris Tibbs, who took on the inaugural ARC and is participating again this year, said: 'The boats have got bigger and faster, communications have changed and so has navigation, but the wind and the waves are still the same.'

World Cruising Club managing director Andrew Bishop said the ARC was about 'achieving dreams', and added: 'When you talk to people at the end of this event you realise what an impact it's had on them.'

The majority of boats will take 18-21 days to make the crossing, arriving in Rodney Bay Marina from 10 December. Whatever time they make landfall, every boat will be met at the dock by Saint Lucia Tourism Board and World Cruising Club staff bearing a welcome rum punch and cold drinks.

All ARC boats are fitted with YB Tracking satellite trackers, which can be followed online at www.worldcruising.com/arc.



St Peter Port Marina in Guernsey



Places going fast for inaugural ARC Channel Islands rally

More than half of the available spaces for next summer's ARC Channel Islands rally have been snapped up.

Sixteen of the 30 boat slots have been booked up for the cross-Channel cruise in company to Alderney, Guernsey, Jersey and Cherbourg. Taking place between 20-27 August 2016, the inaugural ARC Channel Islands is run by World Cruising Club (WCC) in association with RYA Active Marina and with the support of Hamble School of Yachting and Practical Boat Owner magazine. The entry fee includes pre-rally preparation advice and support from a lead boat, berthing for the duration of the rally, GPS satellite tracking of each yacht and the support of WCC staff throughout the rally.

Participants will meet at Premier Marina in Gosport for a welcome supper on Thursday 18 August.



Following safety checks and skippers' briefings, the fleet will set sail for Cherbourg on Saturday 20 August. After having a day to enjoy the town and local market, the rally will visit Jersey, Guernsey and Alderney on a route that allows sailors to combine pleasant sailing with time to explore ashore.

Guy Malpas, RYA yachting development manager, said: 'It will

be an excellent opportunity for sailors of all abilities to gain greater experience in a challenging and enjoyable environment.'

The fleet will return to Gosport following an overnight sail from Alderney, and conclude the rally with a farewell dinner on Saturday 27 August. Confirmed entries can save up to 30% on selected charts and pilot books through Imray once they have signed up to the rally.

Places are allocated on a first come, first served basis. Would-be participants are encouraged to enter early to secure a place. Full pricing details and links to the conditions of entry and safety equipment requirements are available in the ARC Channel Islands information pack.

■ To request a copy, contact World Cruising Club on +44 (0) 1983 296060, or email mail@worldcruising.com

Atlantic Odyssey sets sail

A total of 38 yachts set sail in 'perfect weather conditions' of north-easterly winds blowing at 12-15 knots on the third annual Atlantic Odyssey rally.

In spite of the Atlantic Odyssey being a non-competitive event, several skippers tried hard to be first across the Lanzarote starting line on 18 November with Australian *Alba* finding German *Invictus* hot on its heels. The event, a smaller version of its ARC rival, offers a 20% reduction in entry fees to families with children under 16. Participants are bound for Martinique in the Caribbean.

Organiser Jimmy Cornell, who founded the ARC nearly 30 years ago, came out of retirement to launch the Atlantic Odyssey in 2013, which he runs with his daughter Doina Cornell. In addition to the Atlantic rally, Cornell Sailing has 12 yachts taking part in the inaugural Islands Odyssey. These have left the Canaries bound for the Cape Verde and Barbados, after spending a month cruising through the seven islands of the Canarian archipelago. The Islands Odyssey is a pilot for a more ambitious 2016 event, when the Barbados 50 rally commemorates the 50th anniversary of Barbadian independence by sailing a historic route from London to Barbados via West Africa and the Cape Verde.

Boaters warned about dangers of portable generators

Televisions, laptops, mobile phones, power tools, heaters or simply charging the batteries: whatever the electrical need, the stark warning from a leading boat safety body is that petrol generators will continue to cost lives and cause misery unless boaters use them correctly.

Boat Safety Scheme (BSS) made this blunt statement in light of the fatalities and injuries that have taken place on boats across the UK in recent years: the warning comes as boat owner Matthew Eteson was sentenced for causing the deaths of his partner and her daughter through his faulty DIY installation of a 'poorly designed and constructed' exhaust system for a generator. Eteson was found guilty after a trial in October and sentenced at Preston Crown Court to two years imprisonment,



suspended for two years, for the manslaughter of Kelly Webster and her daughter Lauren Thornton.

Kelly and Lauren died while sleeping on board Eteson's boat on Lake Windermere on 1 April 2013 as result of carbon monoxide poisoning. Eteson was a registered and experienced Gas Safe installer but, due to unsuitable materials, his

pipework failed and the soft soldered joints melted, resulting in carbon monoxide fumes being discharged into the boat. The court was told that Eteson had neglected to test this system and was aware that the carbon monoxide detectors on board had been disabled.

The BSS says petrol generators can be seen as critical to some boaters wanting off-grid electrical power. However, as generators emit deadly carbon monoxide and need refuelling with highly flammable petrol they must never be installed in an enclosed cockpit area or the engine space of a boat, and must never be used on or close to the boat where exhaust fumes could enter it and where they could cause injuries or fatalities. The BSS says that if boaters want to use generators, these basic points should be noted:

■ Never install a portable generator permanently or make unauthorised modifications that are not supported by the manufacturer or proprietary component supplier.

■ Never run generators on the boat or on the bank near the boat's doors, vents, windows and hatches. If you can smell exhaust fumes in the boat, it could mean the cabin is also filling with carbon monoxide.

■ Never refuel any generator anywhere aboard the boat; take it to the bank and ensure you are a safe distance from other boats and potential sources of ignition.

However, make sure you keep to any marina or mooring-owner guidance and rules on the use of generators, refuelling and the handling of petrol on their sites. Further advice is available on www.boatsafetyscheme.org/generators.





Global Gold Anchor marina accreditation scheme launched

The Yacht Harbour Association (TYHA) and Marina Industries Association (MIA) have teamed up to bring together their respective Gold Anchor schemes.

The new Gold Anchor Global Marina Accreditation scheme was launched at the METS trade show following a formal signing ceremony at Marine House, TYHA and British Marine's registered office. TYHA and MIA announced the commitment to a joint scheme in November last year. Since then the parties have worked collaboratively to develop the single global accreditation combining the best features of both schemes with consideration of industry changes and the increasing demands of marina customers. Gold Anchor accreditations will be awarded to those marinas showing commitment to

upholding standards of infrastructure, procedures and customer service.

TYHA chairman Sarah Hanna said: 'The new scheme has a clear focus on marina end users and their needs with regards to facilities, standards and services.'

The Gold Anchor Global Marina Accreditation will be progressively phased in as current Gold Anchor marinas from across 26 countries are re-audited as part of a three-year rolling accreditation cycle. New entrants to the scheme will automatically be audited under the new scheme, which comes into effect on 1 April 2016. Independent expert assessors will ensure that the assessment process provides significant added value to the participating marinas, helping them to raise standards and keep pace in the ever-changing marina market.

■ www.goldanchors.com

British marine businesses honoured at DAME Design Awards 2015

Winners of the DAME Design Awards 2015 were announced recently, with British products receiving more than half of the accolades presented.

The latest innovations from Lewmar, Raymarine, Spinlock and Navionics received Special Mentions, while category winners included products from Henri Lloyd, Navico, NautiBuoy Marine and Spinlock, who went on to receive the joint Overall DAME 2015 Winner award.

The groundbreaking thermal technology of Henri Lloyd's Flex 3D Jacket outshone its rivals to be named winner of the 'clothing and crew accessories' category. In the 'marine electronics

and marine-related software' category, Navico's Halo Pulse Compression Radar was named the category winner. Meanwhile, in the 'deck equipment, sails and rigging' category, the NautiBuoy Multi-functional Inflatable Platform seized victory with a modular air toggle connection system which lets users create multiple configurations.

But it was Spinlock who had the most to celebrate. After receiving a Special Mention for the Rig-Sense in the 'deck equipment, sail and rigging' category, its other entry, the Lume-On, was crowned winner of the 'lifesaving and safety equipment' category and joint overall winner of the DAME Design Awards.

■ **See page 54 for more METS info.**



Spinlock was joint overall winner of the DAME Design Awards

2018 Golden Globe Race

The first 25 provisional entrants have been confirmed for a race starting on 14 June 2018, celebrating Sir Robin Knox-Johnston's pioneering victory in the Sunday Times Golden Globe Race in 1968/9.

The 2018 Golden Globe Race will commemorate the golden anniversary of Sir Robin becoming the first person to sail solo non-stop around the globe.

The 24 men and one woman – Britain's Susie Bundegeard Goodall – have each paid an initial A\$3,000 entry fee, though

some names remain confidential until sponsorship announcements are made.

Falmouth is now confirmed as the start and finish point for the Race, with the National Maritime Museum hosting the event. Competing yachts will be based in Pendennis Marina, and the race will be started using the historic gun emplacement on Pendennis Point overlooking Falmouth harbour.

The Little Ship Club in London will be hosting a competitor and sponsor conference in London on 15 December.

The Transat 2016 race to culminate in New York

The Transat, the oldest single-handed transatlantic sailing race in history, will culminate at the new ONE°15 Brooklyn Marina in New York City, race organisers have announced.

The Transat is the successor to the original solo race across the North Atlantic that was born as the OSTAR (Observer Single-handed Trans-Atlantic Race) in 1960. The Transat will chart a course from Plymouth to New York City, a route across the North Atlantic that will test the best single-handed sailors in the world to their limits. Returning for the first time in eight years, The Transat 2016 is



Transat 2016 is set to conclude at New York's ONE°15 Brooklyn Marina

expected to attract 30 boat entries from four different classes.

Located in the heart of Brooklyn Bridge Park, ONE°15 Brooklyn

Marina, the first marina to be built in New York City in decades, is currently under construction, with a grand opening in spring 2016 to be

marked by this iconic race. The Transat's event director Hervé Favre said: 'A key feature for us as organisers is the fact that the fleet will have the ability to stay together in one marina, which I believe is unprecedented for a multihull race in New York.'

The Transat is scheduled to depart from Plymouth on 2 May 2016 with the first boat expected in New York on around 9 May, although there is no predicting what time the boats will arrive due to the nature of the race. The Transat has not visited New York since its first year in 1960.

www.thetransat.com

British sailing star Sarah Ayton scoops World Sailor award

Britain's double gold Olympic star turned Extreme 40 tactician Sarah Ayton, and New Zealand's Peter Burling and Blair Tuke, have been named 2015 ISAF Rolex World Sailors of the Year.

Five top British sailors had been in the running for the prestigious men's and women's award, with other contenders including Olympic Finn sailor Giles Scott, Volvo Ocean Race-winning skipper Ian Walker, winning-time World Match Racing Champion Ian Williams and Team SCA Volvo Ocean Race skipper Sam Davies. Launched 21 years ago, the ISAF Rolex World Sailor of the Year award recognises outstanding achievements by sailors at the pinnacle of their chosen sport.

Ayton was named as the winner from the five-sailor women's shortlist at an award ceremony in Sanya, China. The double Olympic gold medallist is the sole female sailor racing in the Extreme Sailing



Sarah Ayton, one of the 2015 ISAF Rolex World Sailors of the Year

Series fleet, and as tactician on *The Wave*, Muscat has guided them to five wins from seven regattas, with the team now in touching distance of the series victory when Sydney hosts the finale in December. The ISAF Member National Authorities (MNAs) – the national governing bodies for sailing around the world – voted for the one female nominee and one male nominee whom they felt deserved the honour of receiving the ISAF Rolex World Sailor of the Year Award 2015. Attendees at the

awards were also able to cast their votes.

New Zealand's Peter Burling and Blair Tuke, who were also in the running for last year's World Sailor award, have continued to dominate anything sail-powered. A run of 20 consecutive 49er Olympic class regattas spearheaded their nomination, including victories at the 2015 Aquece Rio, Olympic Test event, ISAF Sailing World Cup Hyeres and Weymouth and Portland as well as Trofeo Princesa Sofia.

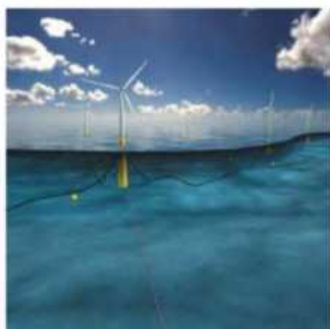
■ www.sailing.org

Scotland gives green light to world's largest floating wind project

The world's largest floating offshore wind development will be installed off the coast of Peterhead after the application has been granted a marine licence by the Scottish Government.

Statoil propose developing a pilot park of five floating 6MW turbines which is to be located approximately 25km off the coast of Peterhead with a generating capacity of 135GWh of electricity each year. It is expected that the Hywind Scotland development could power up to 19,900 houses. Unlike conventional turbines, Hywind turbines will be attached to the seabed by a three-point mooring spread and anchoring system. The turbines will be connected by an inter-array of cables and an export cable will transport electricity from the pilot park to shore at Peterhead.

The Carbon Trust believe that



floating wind concepts could reduce generating costs to below £100/MWh in commercial deployments, with the leading concepts such as Hywind possibly incurring even lower costs of £85-£95/MWh.

Statoil's executive vice president for New Energy Solutions Irene Rummelhoff said: 'We are proud to develop this project in Scotland, in a region with optimal wind conditions,

a strong supply chain within oil and gas and supportive public policies.'

The Royal Yachting Association is taking a keen interest in this and other floating offshore wind developments, particularly as operational safety zones are being requested by developers and in the case of Hywind, the Maritime and Coastguard Agency (MCA) has not supported the developer's application for them.

An RYA spokesman said: 'We will continue to work with the maritime community to limit the impact of offshore wind and tidal developments on the navigational rights and safety of recreational boating.'

DIARY DATES

- **London Boat Show**, 8-17 January, www.londonboatshow.com
- **Notts & Lincs Boat Jumble**, 7 February, Newark Showground, Nottingham, NG24 2NY, Entry £4, www.boat-jumbles.co.uk
- **Gosport Boat Jumble**, 21 February, Haslar Marina, Haslar Road, Gosport, Hants. Entry £4.
- **Essex Boat Jumble**, 28 February, Ardleigh Showground, Old Ipswich Rd, Essex, CO7 7QR. Entry £4.
- **Kent Boat Jumble**, 6 March, The Hop Farm, Paddock Wood, Tonbridge, Kent. TN12 6PY. Entry £4.
- **Weymouth Leviathan**, Britain's only dedicated maritime literature festival, 12-13 March, www.weymouthleviathan.org.uk
- **Irish Boat Jumble**, 10 April 2016, Carrickfergus Sailing Club, Rodger's Quay, Carrickfergus, Co. Antrim, www.irishboatjumble.org
- **Beaulieu Boatjumble**, 24 April, 9am-5pm, www.beaulieu.co.uk/events/boatjumble
- **The Transat, race start** Plymouth, 8 May, www.thetransat.com
- **Push The Boat Out**, 14-22 May, UK-wide event with sailing clubs and venues offering discounted and free taster sessions, email ptbo@rya.org.uk
- **Sail Caledonia 'raid'**, 28 May to 4 June, organised by The Great Glen Boating Club, involves almost 70 miles of cruising and racing through the Great Glen from the Atlantic Ocean at Fort William to the North Sea at Inverness, www.sailcaledonia.org
- **The English Riviera Leisure and Boat Show**, 28-30 May, inaugural event, Paignton seafront, www.leisureandboatshow.com
- **ARC Channel Islands Rally 2016**, 20-27 August, www.worldcruising.com/arcchannelislands

Send your diary dates to pbo@timeinc.com, see more online at www.pbo.co.uk

PBO www.pbo.co.uk – new and improved!

Visit the revamped PBO website to find more free practical content online than ever before. Plus breaking news, gear tests, seamanship advice, reader forums and your questions answered. www.pbo.co.uk





The SYSTEMS SOLUTION for WASTE WATER

t: 023 8045 4507
e: SALES@VETUS.CO.UK | WWW.VETUS.COM



CREATORS OF BOAT SYSTEMS

- Quality engineering
- Innovative design
- Competitive pricing
- Guaranteed compatibility
- Unrivalled warranty

ENGINES | STERN GEAR | FUEL | INSTRUMENTS | FRESH WATER | WASTE WATER | MANOEUVRING | ELECTRICAL | STEERING | HATCHES | VENTILATION

News from your cruising area

Send us your local news stories. Email PBO news editor Laura Hodgetts at news@pbo.co.uk, tel: 01202 440825, or write to the address on page 5

SOUTH

NEW BERTHS

Nine new finger pontoons and an improved layout have created an extra 18 berths at Royal Clarence Marina in Gosport. The pontoons replace some of the alongside berths at Royal Clarence, and the berths are suitable for boats of up to 10m LOA. The 18 extra berths were put in place by Walcon Marine last week and they are already filling up. The marina now has 150 fully-serviced berths.

EUROPEAN MARITIME DAY

A launch event celebrated Poole in Dorset's successful bid to host European Maritime Day in May 2017. More than 80 people attended the Borough of Poole Council-hosted event at the Kitchen, Poole Park, including representatives of the UK maritime sector. European Maritime Day will encompass a two-day international conference at Poole Lighthouse, 18-19 May 2017, followed by a weekend maritime festival. Since 2008, European Maritime Day has been held by a different country each year: host cities have included Brussels, Rome, Gothenburg, Athens and Valletta. The event in Poole will be the UK's only time as a host nation. www.poolemaritimfestival.uk



Councillor Xena Dion and Jim Stewart, Chief Executive of Poole Harbour Commissioners

CHANNEL ISLANDS

FRENCH SAILOR TRAGEDY

A 59-year-old skipper of the 10m catamaran *Moon Dele* was lost when he fell overboard three miles north-west of Normandy's Cap de la Hague in the Alderney Race, the notorious stretch of water separating Normandy from Alderney. The catamaran had been sailing from Omonville back to her home port of Portbail when the skipper fell overboard. His crewman threw a life ring which was subsequently recovered by the Alderney lifeboat some eight miles south of the reported 'man overboard' location.

An extensive search on 11

SOUTH-WEST



An artist's impression of Falmouth Harbour Commissioners' proposed new small boat facilities

MARINA PROPOSAL

Falmouth Harbour Commissioners have submitted a planning application for a new marina to be built within the Custom House Quay basin in Falmouth. The proposal includes a floating marina with berths for 60 boats up to 6m in length and a ramped pedestrian walkway, plus an outhaul facility for some 20 boats situated between Custom House

Quay and Grove Place Boat Park, with access via a pedestrian ramp to a pontoon.

If the application is successful, it is hoped that building work could be completed early in 2016. However, an online petition started by local resident David Barnicoat, which calls for Falmouth Town Council and Cornwall Council to reject the plans, has attracted more than 1,100 signatures.

BREAKWATER PLANS

Funds are being sought to build a new breakwater at Ilfracombe. North Devon Council has lodged a bid with the Government's Local Enterprise Partnership (LEP) for £15million towards the cost of the £35million project. The breakwater, said the council leader, would increase safety for craft, provide better shelter within, boost the economy and rejuvenate the area.

November involved the Alderney lifeboat *Roy Barker I*, French lifeboat *Mona Rigolet*, Channel Islands Air Search aircraft and a French military helicopter. Two of the *Mona Rigolet* crew members helped to sail *Moon Dele* into Braye Harbour, Alderney. As darkness approached, the search was stood down by French officials. Despite further searches by the French coastguard, the missing skipper has not been found.

YACHT DONATION

A Jersey yachtsman has donated his £25,000 boat to the cause of migrants and refugees who are facing a cold winter in Calais camps. Boat owner Michael de Petrovsky visited the camps with aid and construction workers and was so touched by the plight of people living there that the pensioner has now given his seven-berth racing cruiser *Contango* to volunteer aid worker Ghazi Najib to aid the cause. Mr Najib says the boat is for sale, and the money raised will be used to build emergency shelters in the French port town. He told PBO that more than 300 shelters are needed at a cost of \$1,700 each; each shelter can accommodate 20 people and provide facilities for eating and lighting. Mr de Petrovsky is also willing to continue paying the boat's £350 a month mooring fees until it is sold. The yacht is being sold privately by Mr Najib, who said: 'Every penny counts

at the moment before the winter hits.'

Interested buyers can call Mr Najib on 07797 862492 or email ghazi2407@gmail.com.

WALES

BURRY PORT DREDGING

Major dredging work is to be carried out at Burry Port Harbour for the first time in 10 years. Despite annual dredging of sand, silt has built up to an unacceptable level and a tender has been put out for the removal of silt from the entire harbour basin. The work is expected to cost around £0.4 million and will be completed before next summer.

IRELAND

RESCUE MILESTONE

The Irish Coast Guard (IRCG) helicopter crew, based in Sligo, reached their 300th search and rescue (SAR) mission in November, surpassing the previous record of 275 missions in a single year. Services provided by the Sligo helicopter include operations conducted off the west and north-west coasts out to 200 miles, services to casualties on offshore islands and support provided to the HSE ambulance service. Minister of State for transport, tourism and sport Michael Ring praised the 'world-class Coast Guard helicopter service delivering year-round, day and night support' to

people on land or at sea, and also acknowledged the supporting work of the Volunteer Coast Guard teams.

NORTH-WEST

ROYAL DEE BICENTENARY

Royal Dee Yacht Club, one of the oldest yacht clubs in the UK, has been celebrating its 200th anniversary. The club continues to operate without a clubhouse, with meetings staged at hotels, other yacht clubs and members' houses.

A special bicentenary dinner at Eaton Park, the Duke of Westminster's estate near Chester, saw members receive a silver label badge featuring the club's wolf's head motif. Past and Honorary Commodore Richard Yeoward, an Honorary Life Member of the RYA and published author on flag etiquette, sadly passed away two days after the dinner. The final bicentenary celebration of the year was a two-mile walk at low tide from West Kirby to Hilbre Island in the Dee estuary, where RDYC was founded.

SCOTLAND

OBAN VISITOR BERTHS

Hopes have risen that Oban may get new visitors' berths by the summer of 2017. Plans for 36 berths to be built between the North and Railway piers had stalled because Argyll and Bute Council was unwilling to provide

funding. However, agreement has now been reached to locate the new pontoon berths to the north of North Pier using money from the council's Chord waterfronts project budget.

RESTORED BOAT ARSON

An investigation is still under way after a boat was deliberately set alight in Levenmouth. The 7.3m (24ft) Tamar 2000 vessel was targeted in the early hours of 16 October at Methil Boat Club and completely destroyed by the attack. It was owned by former boat club chairman Alan MacKay, who had spent five years restoring it and spent an estimated £20,000 on the work. Police Scotland appealed for information about two men caught on CCTV entering the yard twice. There is a private reward of £2,000 for information that leads to a conviction.

NORTH-EAST

GALLANTRY AWARD

Scarborough RNLI Helmsman Rudi Barman has been awarded a rare RNLI Bronze Medal for Gallantry in recognition of the courage, skill and leadership demonstrated during a dangerous lifeboat mission earlier this year. On 22 February, Scarborough RNLI inshore lifeboat launched into near gale-force winds, treacherous seas and darkness to rescue local man Andrew McGeown, who got into difficulties after going into the sea to rescue his dog. Tragically, Mr McGeown did not survive.

Rudi is the first Scarborough RNLI volunteer for 42 years to receive a gallantry medal.

REDCAR YACHT WRECKAGE

The Coastguard is appealing for information after yacht wreckage was found at Redcar Beach on Sunday 22 November. Investigations indicate the vessel was an Oday 22: wreckage colours are blue, white and red, with a section of the stern marked Hartlepool. If you have information about the boat, please contact Humber Coastguard Operations Centre on 01262 672317.

SOUTH-EAST

MOORING FAILURE

Gravesend RNLI lifeboat crew recovered an unmanned yacht after it broke free from its mooring and drifted into a shipping lane. The charity's lifeboat launched on 7 November after London Coastguard had received reports of a sailing yacht which was seen drifting in a shipping lane. The yacht was found to be unmanned, with evidence that its mooring had failed due to the bad weather conditions. A Gravesend RNLI spokesman said: 'Shortly before the yacht was blown onto the shore, the lifeboat crew were able to rig a tow and tow the vessel to safety.'

The yacht was returned to a sailing club mooring.

INLAND

WRENBURY MARINA BUILD

Planning permission has been granted for a 200-berth marina to be built at Wrenbury on the Llangollen Canal following an appeal. The U-turn comes despite almost 300 objections to the proposal and a campaign by a 'Say No To Wrenbury Village Centre Marina' group, who are concerned about the effect on the village and extra boat movements increasing disruption to road traffic when the lifting bridge is raised. The marina will occupy four fields in the centre of Wrenbury, with a 2.37-hectare basin, linked to the canal under a new towpath footbridge just downstream of the lift bridge. Facilities will include offices and a café, plus a range of boaters' services.

EAST

ANTI-THEFT INITIATIVE

A new BoatShield initiative has been launched to cut marine theft on the Norfolk Broads. Norfolk Constabulary is promoting the new SelectaDNA Marine Kit to boatyards, chandlers, clubs and groups in the area as part of its new BoatShield scheme. The SelectaDNA Marine kit can be used to mark each valuable item with a unique formula of DNA, UV tracer and microdots – and comes with a warning sticker to deter would-be thieves when boats are locked up for winter. The scheme was launched at an open Day at Brundall Bay Marina.



A Boatshield initiative has been launched on the Norfolk Broads

MEMORIAL TROPHY

The family of a sailor who was killed by a falling yacht mast is to donate a memorial trophy in his name. Tom Gentle, aged 56, died on 25 September when the 14.6m (48ft) mast of his Broads cruiser struck him in the chest at Norfolk Broads Yacht Club in Wroxham.

An inquest on 26 October, which ruled the death was the result of an accident, heard how the incident was likely to have been caused by the boat's forestay not being properly fixed to the bow. This resulted in a loose shackle buckling under the weight of the carbon-fibre mast, sending it backwards. Mr Gentle, of Booton, died from blood loss within minutes of being hit.

On the day of his death Mr Gentle had been preparing his 9.7m (32ft) boat for the annual Yare Navigation Race, which later saw participants hold a minute's silence and tie black ribbons tied to Broads boats in his honour.

PBO

Next month

FEBRUARY
ISSUE ON SALE
THURSDAY DECEMBER 31

PRACTICAL

Tracing leaks

■ Find out where – and why – the water's getting in, and how to stop it

Plus

- Adding engine data to your plotter
- Replacing a fridge
- Ventilation to keep mould down
- Fitting new rudder bushes

TESTED

Forward-looking sounders

■ Which is best at reading the seabed ahead of your boat?

BOATS

Ed Dubois designs

■ From Westerlys to superyachts

Sargo 31

■ A quality finish from the Finnish

SEAMANSHIP

In-mast reefing

■ The easy way to set and unroll your mainsail

Casting off

■ Techniques for various conditions

CRUISING

Southwold cruising guide

■ Satisfying sails off the Suffolk coast

A Lugger round Ireland

■ On the water in a 1966 Drascombe

PLUS

Guy & Clare Hunter

■ A lovingly-maintained lifeboat which attended the *Torrey Canyon* disaster

Practical tips from the ARC

**FEBRUARY ISSUE ON SALE
THURSDAY DECEMBER 31**

Contents subject to change

PBO

Bargains of the month...

More great bargains in the Chandlery section starting on page 57

DANBUOYS

Fixed and telescopic Danbuoys for inshore, coastal, offshore, ocean and RORC applications. All feature flag and retroreflective tape 2m above sea level, 3m LIROS yellow braided floating line, deployment within 5 seconds.

■ Jimmy Green Marine
Tel: 01297 20744
www.jimmygreen.co.uk

**PRICES FROM
£42.00**



WAVELINE AUTOFOCUS 7X50 BINOCULARS

Features durable alloy aluminium casing, non-slip rubber grip, flexible rubber eyecups, weighs 780g and is supplied with a carry case. Bak 4 lens, autofocus field of view: 119m @ 1,000m (357ft @ 1000yd).

■ Marathon Leisure
Tel: 02392 637711
www.marathonleisure.co.uk

**PRICE
£24.99**



GILL KB RACER SMOCK SUIT

Next-generation waterproof protection for the performance keelboat racer. Gill's 4 Dot™ 3-layer fabric is a blend of waterproof barrier, breathable comfort and durability. Colours: Silver (shown) and Ash, sizes S-XL.

■ Force 4,
Tel: 0845 130 0710
www.force4.co.uk

**PRICE £249.95
(MRP £439.90)**



Readers share their thoughts and opinions

FALLING FOUL OF ANTIFOULING REGULATIONS?

Practically being ignored again

■ Re your news story about new antifouling paint regulations (PBO November), I suspect that any new regulations may be onerous. EU regulations often begin with a beneficial idea, but my experience would suggest that they then lose sight of the fact that practical people affected by the outcome should have some part in formulating them.

I was one of the worst-hit victims of tributyltin (TBT) in antifouling paint, which was both tested and used in the Yealm estuary in the early 1970s, 10 years before the active ingredient was named on the outside of the tin. TBT has an LC50 (lethal concentration for 50% of the population) for oyster larvae of one part in

10 thousand million, and I was owner-operator of probably the best commercial oyster hatchery in Europe. In 1974, everything in my hatchery died between April and August, when I had a full order book. I thought it was an unknown disease so I closed down, hoping to restart after decontamination, but I lost my leases and let down many customers.

By the time the International Maritime Organisation banned TBT antifouling worldwide, about 10 years ago, I was already 65 and no longer capable of rebuilding my business somewhere else because the River Yealm was crammed with little-used yachts. The 'Crown

Fishery' where I had nursery rafts is still open water, but the current harbour authority now seems only to serve leisure boating interests.

However, other hatcheries are operating successfully in the UK, suggesting that the water quality is at an acceptable level. Oyster larvae are used to test the toxicity of suspect seawater so there's no point in arbitrarily banning copper if the best test organisms are OK. Copper's LC50 for oyster larvae is about four parts per million. TBT's, as I said before, is 1 part in 10 thousand million – so copper is more than 10,000 times less toxic than TBT.

Tony Maskell
Newton Ferrers

a 125A fuse in a pretty inaccessible position. The current draw from the winch in a 'no load' situation would only be tens of amps, so the fuse would offer no protection.

The culprit was the operating switch for the winch. Water must have got into it – whether rain or condensation is impossible to tell. The micro-switches used here make no pretence of being waterproof, dustproof or having any sort of IP rating. They are simply covered by a black ring sealed to the deck which has a soft 'rubber' inset clamped in that you press to power up the winch. On dismantling the cover, all that was left of the switch was corrosion, and what was left of the slide had shorted across the two terminals so the contactor that feeds the main power to the winch had closed.

Although Harken were very helpful, it still cost £1,700 to get a new motor and gearbox. Luckily, the winch itself was undamaged.

I subsequently fitted the missing circuit breaker where it could easily be reached. I have since had to replace two more switches, because the winch tended to run on a bit after releasing the button. One was free of charge, and the other

£40. Isn't it time that both winch and windlass manufacturers looked at alternative switches? A heavy-duty waterproof reed switch should be considered, but there appear to be a number of other types of waterproof switches (IP67) available as well. The switch covers seem fine, but I feel a belt-and-braces approach is needed.

Phil Stanton, by email

Spec speculation

■ Your useful article '14 ways to get a fix' (PBO November) and the photo of a hand bearing compass being used reminds me of a brief cautionary tale. A few years ago, while practising using my hand bearing compass, I was getting quite strange and unexpected bearings. I soon realised that there was a tiny magnet in the centre of my spectacle frames which was used to secure the 'add-on' shades that came with my glasses. Holding the compass close up to the specs caused the huge aberration in the readings, so I had either to try without the glasses or hold the compass at arm's length.

Brian King
By email



PBO's David Pugh replies: *You're not the first reader to report problems with hand-bearing compasses – and there doesn't have to be a magnet. One reader said he found that the steel frames of his glasses had a similar effect.*



Phil Stanton's burnt-out winch motor. INSET On dismantling the cover for the operating switch of the winch, all that was left was corrosion

Powered winches: a very hot topic

■ Re Chris Mardon's letter 'Perish the thought' (PBO November), I also had a powered-winch problem four years ago – although in my case, the pain was more in the bank balance than personally.

One day in January 2011 I arrived on my boat *Mascot* and could smell burning coming from one of the cockpit lockers. I have electric winches on the boat, and as the photo above reveals, a winch motor had clearly become very hot. The contactor (out of sight) had also suffered from heat damage, and there was heat damage to the red power cable above the motor and the top of the locker.

I got onto Harken for their response, and they replied that

they had never seen anything like it. A discussion took place regarding circuit breakers, which were specified at 100A. It appears that the builders had instead used

PEYTON'S PICK FROM THE PAST



'... And just dump it – don't come back with anything else that might be handy'

Taken from Practical Boat Owner April 1985

A Westerly graveyard?

■ I spotted six or seven very sad-looking yacht moulds in an industrial estate just outside Stirling. They had obviously been lying there a long time, and some have 'Riviera', 'Fulmar' and 'Falcon' written on them: can anyone confirm if they are the actual moulds for these and other Westerly yachts?

Stuart Macdonald
By email

John Ruskin of the Westerly Owners' Association replies: *After Westerly sank for the last time in 2000, these moulds were sold by the receiver to a company based in Bridge of Allan near Stirling. They produced one boat of apparently dubious quality that was displayed at Southampton Boat Show and then they themselves went under. The council foreclosed on their rented factory and*



One of the abandoned yacht moulds on an industrial estate near Stirling. INSET 'Fulmar' is daubed on the right-hand mould

disposed of nearly everything that was on the site. In the opinion of some, what remains is only fit for scrap: a sad way for these items to end their days, and a stark contrast to the success and continued popularity of the 12,000-plus boats Westerly built.



SEADOG OF THE MONTH



■ This photo was taken at Kielder Water on our 14ft Lune Pilot. We were cold and wet, but not miserable; however, given a little more time, our Yorkies Megan and Teddy might have been!

Ian Garner



Seadogs galore!

Visit our seadog gallery at www.pbo.co.uk/seadogs or scan this QR code with your smartphone.

Send us your seadog photos for our web gallery and your pet may be lucky enough to become Seadog of the Month and win you £30



Does anyone know where this 10.7m (35ft) motor-sailer is today?

Location location location...

■ I'm trying to obtain the location of (or any information about) a fin-keeled 10.7m (35ft) George Whistock-designed motor-sailer my dad, Michael Turner, was building before he died in 2005. He worked on the boat at a berth in Farnon Marina near Newark, from where it was sold a few years after he died. Unfortunately we no longer have any contact details for the person who bought it, but I seem to remember he was from the Derby area and had watched it 'growing' as my dad worked on it. I would love to know if the boat was ever completed and if it is being enjoyed the way we hoped it would be: to see it finished would be a wonderful tribute to my amazing dad.

Zoe Noon
By email

Knocked for a loop

■ I had the pleasure of purchasing the *PBO Project Boat Handbook* recently for a little light reading while on a trip. I thoroughly enjoyed reading it even though sailing and sailboats are not my thing, but I was a little disappointed that we were not able to assist you in the toilet department!

One thing I would like to highlight regards the toilet hoses: in the handbook, you suggest that you formed loops in the hoses above the waterline to create anti-siphon loops. This is a common mistake made by many boatbuilders and boat owners. Regardless of how high above the waterline the loop is created, it will not make an anti-siphon device: this can only be afforded by a vented loop valve. This valve will allow air into the hose to equalise the pressure in the line and prevent flooding of the boat via the toilet bowl. The fact is, if there's a differential in pressures from one end of the hose to the other, water can flow. Admittedly, the forming of a loop will make syphoning difficult, but not impossible.

On the *PBO Project Boat* you do have security on the system you have installed because you have a hole in the inlet pipe which will do the job of an anti-siphon valve: you

also have valves in the discharge pump which will prevent back-flow, but other systems are not so secure!

Gary Sutcliffe, operations director, Lee Sanitation Ltd, Warwickshire

Well chuffed in Dartmouth

■ In the otherwise very good article on Dartmouth (*PBO* December), the station in Dartmouth 'which has never seen a train' was mentioned but not the one at Kingswear, belonging to the Dartmouth Steam Railway. This is adjacent to the Dartmouth Marina, which makes it a good option for a crew change in the summer. While the line there (with

steam-hauled trains) is mainly advertised as a tourist attraction, in summer there is a reasonably frequent daily service between Kingswear and Paignton, where the station is adjacent to the Great Western station with a good service to/from Exeter St Davids and so to/from the rest of the country. Unlike some much bigger places, the stations at Paignton are also close to the main shopping street in case anyone needs to do some last-minute shopping.

Peter Jones, Woodbridge, Suffolk

PBO PUZZLE 197

If one of your crew sustains a large open wound, which of the following should you NOT do in your attempts to control the bleeding and help the casualty?

- A. Apply a tourniquet
- B. Elevate the limb
- C. Apply pressure using a pad and bandage
- D. Try to stitch it up
- E. Call for help if possible
- F. Clean the wound
- G. Treat for shock
- H. Spray with cold water

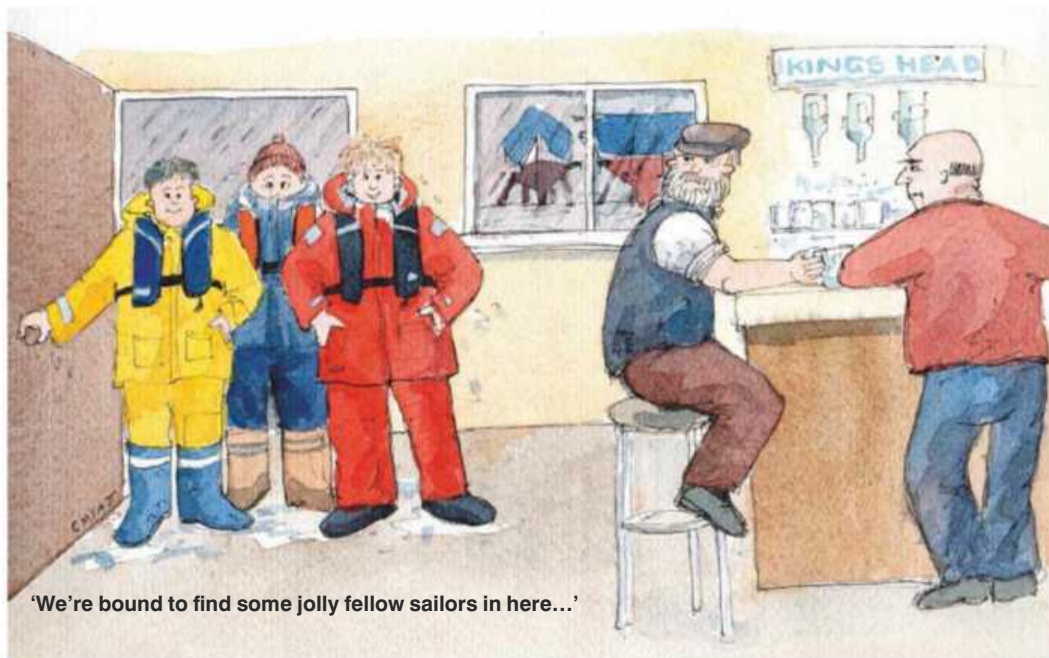
■ Find the solution at the bottom of page 106



Dave Selby

Mad about the boat

Dave Selby is the proud owner of a 5.48m (18ft) Sailfish, which he keeps on a swinging mooring on the picturesque Blackwater estuary in Essex



Gracing us with their presents

To the seasoned observer, the sight of boutique branded sailor wear in the pub at this time of year signifies a successful Christmas haul as opposed to an intrepid bout of winter sailing

Brace yourself! It hasn't happened yet, but it's about to. I can feel it in my bones. Any day now the door of your favourite waterside pub will burst wide open, an unfeasibly cheery and ruddy-faced bunch of Famous Five hearty winter sailors will tumble in, leave the door open, throw their salt-drenched oilies into a steaming heap on top of the pub dog, back up to the fire while making jokes about prop walk, start rubbing their buttocks in an unsavoury fashion, then roast their chestnuts – that's if they've got too close.

Let's be clear, this is downright unsailorly conduct. For a start, you can tell by their insufferable enthusiasm and the newness of their spotless branded boutique sailor wear that they've recently been on a course, and have closed all their seacocks before coming

ashore. If they can do that, why can't they close a pub door? Haven't they done that course? Of course, as locals we don't say anything, but just glower at the open door, for nothing since the big freeze of '63 has actually stunned us into speech – and even then no one's really sure if it was actual speech or just teeth chattering.

Other giveaways are the fact that they've put their lifejackets back on after removing their oilies, and in a fit of giggles have snapped their lifelines on to the brass foot rail around the bar. The fact is, though, that they've made a very basic navigational error. They've failed to correct for deviation – ours, that is – and have ended up in the wrong bar; ours, that is. The back bar at The Queen's Head, which is, errr, actually at the front, is also known as the members' bar. It's for locals. It's the way of the waterfront. The

front bar, which is actually at the back, is the one for 'blow-ins' or 'randoms', as we call anyone who lands in Maldon wearing a lifejacket to the pub.

But they've made one more truly fundamental error, for anyone with any sense at all has by now swaddled their boat in layers of shredded tarps, roofing felt, rubble sacks, old sails and mildewed army surplus canvas ground sheets. The true aim of this is not to protect your boat from the ravages of our British winter, but something far more practical: in the first place, to prevent you getting on board to do any maintenance; and second, to stop you doing anything as utterly foolish as going sailing in Britain in December, January, February or March.

Perhaps I'm being cynical, 'cos in the past I've sailed in December in my Sailfish,

which has all the thermal insulation of a soggy thong. It was wondrous for the first five seconds, until my frozen feet froze solid to the frozen cabin sole. I've sailed in snow too, and that was magical too, for three seconds, until it started stinging. Once, when I was younger, I was enticed sailing on New Year's Day by super-eager friends who'd read so much Arthur Ransome it had affected their minds. 'Isn't it perfectly magical? There's no one else out here,' said one. I offered an explanation you won't read in children's sailing books.

The Frostbite race

I've also sailed in the Frostbite race from Limehouse to Erith on the Thames in February on an old mate's ancient Westerly Renown, which had a domestic paraffin heater lashed to the compression post (you won't learn that on courses!). Trouble was, we couldn't go below at all 'cos it was so hot down there we'd melt; so we had to freeze in the cockpit and just hope the paraffin ran out before the compression post caught alight.

Of course, all this is character-building, but I realised I'd had enough of that years ago when, after four hours freezing my fuddocks off, the skipper said: 'I think we can head back now, honour has been satisfied'. 'Honour had been satisfied' is sailor code talk for: 'It's bloody miserable out here, so let's pile into the yacht club bar and pretend it wasn't'.

There is, however, one exception. If a band of gung-ho types walks into your favourite waterside pub or sailing club bar on Boxing Day in spotless branded boutique sailor wear, lifejackets and lifelines, don't be fooled. They've not been sailing, they're just trying on their Christmas presents! And that's really bonkers.

PBO LISTEN ONLINE

Hear Dave Selby's podcasts on the PBO website www.pbo.co.uk



FOR A FREE
TRIAL NIGHT
AND A QUOTE
PREMIERMARINAS.COM

Upgrade to a Premier Marina. You'll love the difference.

The best thing about Premier Marinas is its welcoming staff and superb customer service. But we know you want it all, so we continue to invest in making your time with us perfect - from luxury facilities to new boatyards, self-serve fuelling, new restaurants and more. But don't just take our word for it, call now for a free trial night and find out for yourself why over 90% of our customers think we are good or excellent.





Sam Llewellyn

Flotsam and jetsam

Sam Llewellyn is editor of *The Marine Quarterly*, www.marinequarterly.com, and author of nautical thrillers. Three years ago he bought a Coribee on eBay

Assume the recovery position

... in a really comfortable chair by a really hot fire, with a boat-related page-turner

The solstice is upon us, the goose is getting fat, and the boat is either in the water breeding mould or on the hard developing green slime. It is time to turn the mind away from the harsh wind blowing out of the horizon and do a bit of reading.

During summer gales, it is soothing to peruse gardening books. At this time of year, though, withdrawal symptoms are kicking in, and it is essential to read things based on boats. Luckily, there is plenty to be going on with, and some fine titles to demand for Christmas.

First stop is an excellent publisher called Lodestar Books, who have made it their business to haul most of the significant yachting titles of the past 100 years back into print. Go cruising with Albert Strange, 19th century Minimum Boat enthusiast out in his canoe yawl in all weathers. Stiffen the upper lip and visit the Mediterranean in the company of George Millar, a babyfaced war hero who, having made life deeply awkward for the Nazi occupiers of France in WWII, decided to go sailing. He is best known for war books like *The Bruneval Raid* and *Horned Pigeon*. His first sailing book, *Isabel and the Sea*



Ben Crawshaw's Light Trow, *Onawind Blue*

(Dovecote Press, £12) tells the story of a late-1940s cruise to Greece via French canals in which they ran aground on the debris of wartime bombing. His slightly later *A White Boat from England* has just been republished by Lodestar. He is a writer of great skill, and his books are full of excitement, atmosphere, and the kind of characters who turn up in James Bond novels.

Another excellent thought of Lodestar's is to republish the works of Harold 'Bill' Tilman, who combined sailing with

climbing in a heroically uncomfortable manner. Roughly half Tilman's books are about climbing, and half about sailing. Lodestar are publishing sailing and climbing books alternately, starting with *Mischief in Patagonia*, which combines the two activities in an alarming fashion. Tilman was not much of a sailor when he bought *Mischief*, a Bristol Channel pilot cutter, refitted her in Mallorca and advertised in the personal column of the Times for a crew ('Hands wanted for long voyage in small boat: no pay, no prospects, not much pleasure').

He had learned a lot by the time he arrived in her at the Straits of Magellan, and even more by the time he was dodging ice and headwinds to land himself on a Patagonian glacier. The idea was to explore this glacier, on which he had read that there were lofty trees swarming with hummingbirds, while on the ice at their bases (said the books) penguins paced solemnly to and fro.

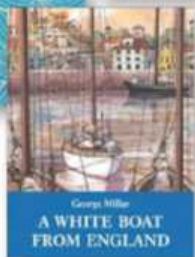
What he actually found was a freezing chaos of crevasses and rubble. Meanwhile his boat had run aground on an

unmarked reef, and was under assault from ice floes sweeping down on a three-knot tide. All this and more besides makes this an ideal book to read in a really comfortable chair by a really hot fire.

Messing about in Boats by Surgeon Rear-Admiral John R Muir, long out of print but available from Abebooks, gives the lie to the well-known adage that the three most useless things on a boat are an umbrella, a ladder and a naval officer. Muir was a fanatical sailor, who spent his leaves from the navy at sea in sailing boats. Not for him a read of *Heavy Weather Sailing* by K. Adlard Coles or the nasal cooing of an RYA instructor. Muir's technique was to go sailing with the Bristol Channel pilots in their cutters, hanging around to pick up inward-bound ships in February Force 9s west of Lundy, eating hardtack and sleeping in a verminous box bunk. And managing, in the process, to be funny enough to knock you out of your chair laughing.

A life-changer

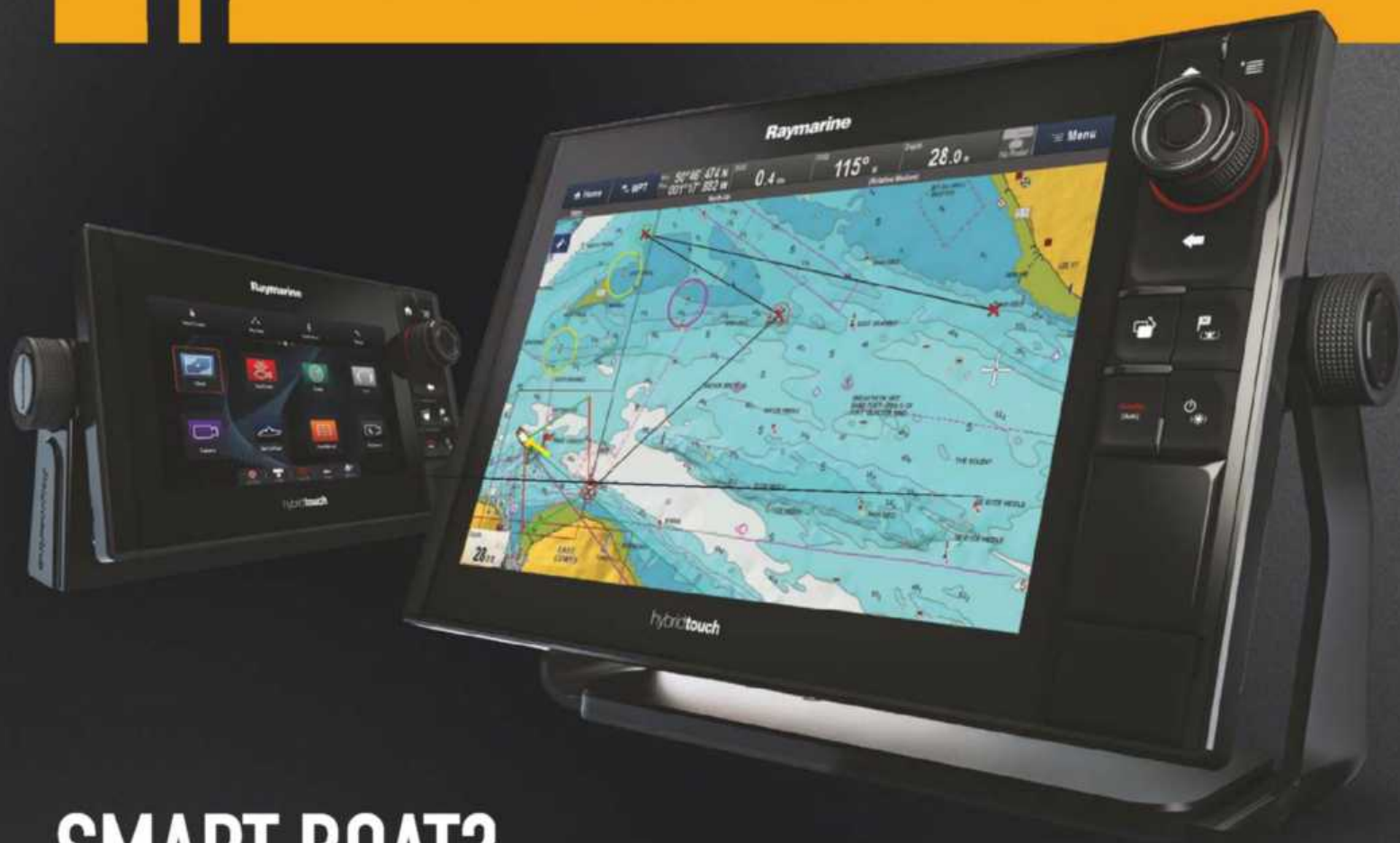
Finally, another Lodestar necessity. Ben Crawshaw's *Catalan Castaway* is a tanner's worth that may change your life. Ben lives in northeast Spain, and floats around the (with luck) sapphire Med in a Light Trow he built himself. His remarks on life, sailing, the pursuit of the wily octopus, making passages and building boats, will yank open your windows and let in floods of sunshine. When you get up to shut them, the view will still be the khaki creek in a green-drab marsh. But there will be a boat in it somewhere, and pending the arrival of longer days and warmer breezes, that will be something to dream about. 



SPECIAL OFFER



**FREE INSTALLATION AND
3 YEARS ONBOARD WARRANTY**
ON SELECT RAYMARINE PRODUCTS THIS WINTER



SMART BOAT? MORE LIKE GENIUS BOAT!

GIVE YOUR BOAT A BOOST OF INTELLIGENCE WITH NEW eS SERIES POWERED BY LIGHTHOUSE™ II – NOW SMARTER THAN EVER WITH MORE CHART CHOICES, AUTOMATIC ROUTE PLANNING, AND ADVANCED SAILING TOOLS.

TERMS & CONDITIONS APPLY
FOR DETAILS PLUS OFFER
INFORMATION, GO TO
WWW.RAYMARINE.CO.UK/WINTER15
OFFER STARTS 1 DECEMBER

SEE US ON STAND
C018

London
Boat
Show 08
~17
JAN
2016

TO FIND OUT MORE, SPEAK TO AN
APPROVED RAYMARINE
SERVICE DEALER

Raymarine®
BY **FLIR**

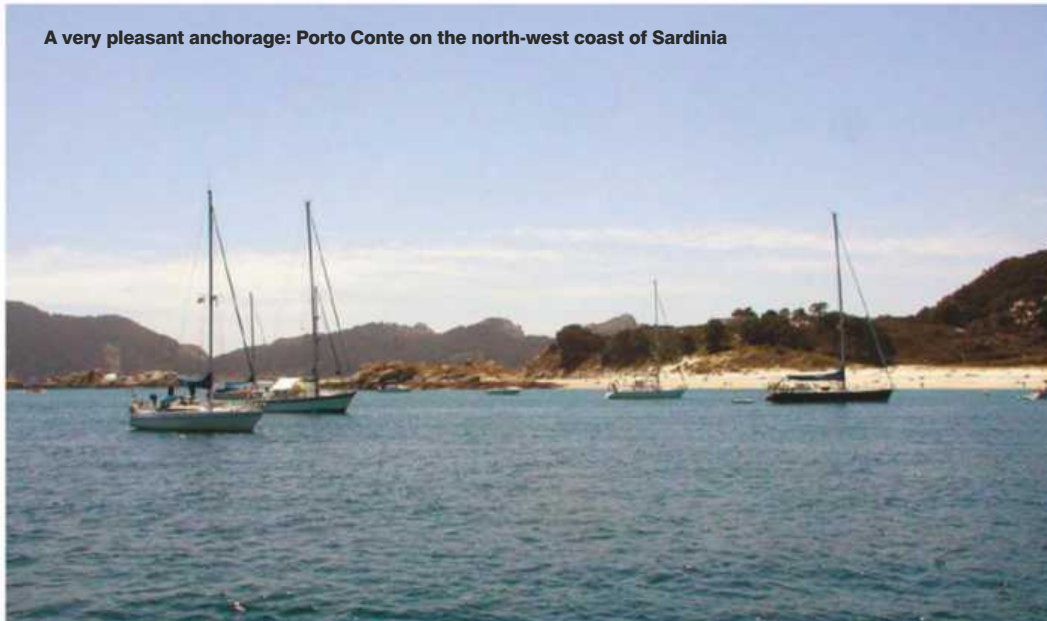


Andrew Simpson

Monthly musings

Yacht surveyor and designer Andrew Simpson cruises with his wife Chele in his own-design 11.9m (39ft) yacht *Shindig*. Read his blog at www.offshore-sailor.com

A very pleasant anchorage: Porto Conte on the north-west coast of Sardinia



Is seeing believing?

When dropping the hook, it's usually a case of gone but not forgotten

Let's face it, in the boating world there are few more stressful tasks than anchoring – and I venture to suggest that the stresses that arise from it often arise from our own actions.

Something like a decade ago we were at anchor off Porto Conte, an attractive community deep in a well-sheltered bay on the north-west coast of Sardinia; a very convenient landfall for sailors crossing from Menorca some 180 miles to the west.

Having made that same passage ourselves a few days earlier, we were enjoying the relative calm of lying to the hook in what were, in our view, almost perfect surroundings.

With the light darkening towards dusk we were sampling an appropriate sundowner when we spotted a forty-something-footer approaching under power from the south-west. A red ensign at the stern

and two figures on deck: British and likely a cruising couple. She (who I'll call Daisy to protect the innocent) was at the wheel and he (Derek) was in the bow.

In they came; over halfway into the bay by now. The sound of the engine and their voices could be heard.

'Call the depth as we enter, please,' said Derek.

'Just a shade under five metres,' responded Daisy.

'Slower.'

'Four metres.'

'Slower still.'

'Three-and-a-half metres.'

As they advanced, Derek was looking tense and increasingly agitated.

'Slower – much slower.'

'Two metres.'

'Stop the engine! No... go astern! Go astern! Now!'

'Zero metres.'

Now there was total incredulity. Derek rushed aft to the shrouds and peered over

the rail. They looked at each other in disbelief. Why weren't they aground?

Then Daisy's quavering voice: 'Sorry, Derek. I seem to have had the instrument display switched to boat speed.'

Family spats in public can be embarrassing for onlookers, don't you agree?

And they aren't alone.

Many sailors have been confused by multi-functional instruments, and the potential for information overload increases with every new toy that emerges.

But the absence of

The potential for information overload increases with every new toy that emerges

information can also deceive. I'm sure there's a psychological term for it, and certainly some illogicality, but the more I can see the more anxious I become.

As regular readers may know, our home port is Poole, though we haven't sailed there for more than a dozen or so years. It's an interesting place – the largest natural harbour in Europe, covering about 36 square kilometres. It has one of the smallest tidal ranges in Britain; about two metres

between high and low waters. It also has twice the usual number of high tides per day; four instead of the more usual two. (Incidentally, Weymouth, 30 miles to the west, has by contrast four low waters per day; a source of wry amusement to my neighbours.)

Although large in area, Poole Harbour is shallow for the most part and contains water of an opacity resembling mulligatawny soup. Yet over the 30-odd years Chele and I have been associated with the area, I have never dragged an anchor while there. Indeed, my recollection of past experiences brings back memories of nonchalantly tossing anchors over the side to see them immediately disappear from view. Once set, we would go about our activities without further care. The anchor was entrusted to perform unsupervised.

So here's the curious part. The last decade has seen us sailing waters that ranged from slightly murky to as transparent as glass. You'd think that having sight of the anchor would be reassuring to a crew, but for us that's not the case. It seems that because you can see it, it demands to be seen. When we arrived in Port Elizabeth, on the island of Bequia last June, the water was gin clear, the bottom of sand; excellent omens both. First we patrolled the anchorage looking for a suitable spot – a matter of no more than a few minutes. It took little time to find what we

wanted and soon had dropped the hook in about 6m. With a range

of less than half a metre, tides were not an issue. But had the anchor set properly? Going astern it certainly felt secure; but had it really?

Too weary to swim out and take a look; too late to inflate the dinghy in the fading light; I vowed to check the next morning. Yet such visual reassurance would have been impossible in Poole, so why was I worrying now?

Could out of sight mean out of mind?



Feel the freedom

360° watersports experience.



Michael Walther,
Regatta sailor

23.-31.1.2016
www.boot.de

Experience the forces of nature, taste the salt on your tongue, meet the sporting challenges as part of a team or find peace and balance – you can experience everything about sailing at boot Düsseldorf from 23th – 31th January 2016.

For further information contact:
International Trade Shows Link Ltd.
Ramsay House, Marchmont Farm _ Link Road
Hemel Hempstead _ Hertfordshire HP2 6JH
Tel. +44 (0)1442 23 00 33 _ Fax +44 (0)1442 23 00 12
info@itsluk.com
www.itsluk.com



STRIPPER
PROPELLER PROTECTOR

Buy online at
www.ropestripper.com

Saildrives are our speciality

Ambassador Marine
252 Hursley, Winchester,
Hants. SO21 2JJ
Tel (01962) 775405

SPEEDSEAL *Life*

Award winning Bearing Encased*

DOUBLE IMPELLER LIFE

RUN-DRY SAFETY

Upgrade kits available
01372 451992
www.speedseal.com

now on military, rescue & lifeboats

THE PLYMOUTH PILOT 18'

Displacement motor launches.
Easy to handle.
Very economical to run.
All structural components in glass fibre and trimmed in teak.
Every boat individual to customers spec*.
UK's number one displacement manufacturer.
Mouldings and engine packages available.

GLASS REINFORCEMENTS PLYMOUTH, THE WORKS,
WIXENFORD, PLYMSTOCK, PLYMOUTH. PL9 8AA
www.plymouthpilots.co.uk

PLYMOUTH PILOTS 16' 18' & 24' TO RECEIVE A BROCHURE TEL: (01752) 482588

The Bavaria story

Peter K Poland outlines the development of the Bavaria company, looking at key models in the firm's boatbuilding history



Many moons ago I wore a suit and worked in the City (believe it or not), ending up in the early 1970s as the overseas department manager in a firm of Lloyds insurance brokers. At the time, the mythical Jim Slater started hogging the financial headlines. Everything about him seemed exciting (unlike my job) and he became a City guru. He even wrote a book about how it should be done, so I read it –

aiming to pick up a few useful hints – and was struck by one phrase along the lines of ‘the thing makers are the fools.’ That settles it, I thought: I must follow Jim’s advice and avoid being a ‘thing maker’.

But the best intentions can go astray and I soon found myself far from the City, based at an Essex factory up Rochford Creek. Making things. Boat things. And very satisfying it was too, albeit without the financial rewards of rising through the ranks in the City. And I got to attend all the European boat shows – either



The founder of Bavaria Yachtbau, Winnfried Herrmann

as an exhibitor or as a visitor in search of new trends. My designer friend David Thomas called this ‘research’. I preferred to call it ‘nicking good ideas’.

Surrounded by rising stars such as Bénéteau, Jeanneau, Dehler and Dufour, I often wandered over to the stand of a little-known German firm that built solid, timber-laden, hand-crafted yachts in the Scandinavian idiom. Bavaria was its name. Founder Winnfried

Herrmann started his career working as a vacuum cleaner salesman, then he changed tack in the late ‘60s and set up Fensterfabrik HeHa-Plast to make windows and doors on an industrial scale. He also sailed as a hobby, subsequently setting up a separate division in his window empire to build boats. Thus, in 1978, Bavaria Yachtbau was born.

‘Never make your hobby your business,’ I was once advised – and someone else told me the only way to make a small fortune out of boatbuilding was to start with a large one. However, Herrmann eventually put this myth firmly to bed. After a serious hiccup in the early 1980s when the window business went bust – dragging Bavaria down with it – yacht dealer Josef Meltl came to the rescue, helping to refinance the boatbuilder

ABOUT THE AUTHOR



Peter K Poland crossed the Atlantic in a 7.6m (25ft) Wind Elf in 1968 and later spent 30 years as co-owner of Hunter Boats. He is now a freelance journalist.



Bavaria's Giebelstadt factory covers more than 656,000sq ft

Bavaria



Bavaria Caribbean (Lagoon) 42, available second-hand from around £56,000

Sailing Scenes



There's a lot of automation at the Bavaria factory – but the firm still employs around 600 people

Bavaria



There's an active and enthusiastic association for Bavaria owners

Sailing Scenes

and taking a 50% shareholding. Then – having weathered financial storms in the early '90s – Herrmann lifted boatbuilding onto a new plateau with hyper-efficient production methods and disciplines. At that stage, Bavaria led the field of modernised boatbuilding.

Bavaria marketing man Marcus Schlichting told me: 'The progress of Bavaria was huge and fast in the late 1990s. Winfried Herrmann was a real Henry Ford in the yacht industry. He quickly increased production to four product lines. Hull and deck were built with the help of the first CNC milling machine to be used in the yachting industry. He optimised the production of the carpentry with robots and automated painting machines. At the end of the Winfried Herrmann era in 2007, Bavaria built 3,500 boats per year.'

Like competitors Bénéteau and

Jeanneau, Bavaria also moved big time into the world of powerboats. Without this important second string, none of these great companies would have grown and prospered. Indeed, perhaps they might have disappeared?

Winfried Herrmann and his business partner Josef Meltl then pulled off a major coup, selling Bavaria in 2007 for between €1.1 and €1.3 billion (depending on your source) to Bain Capital. That's billion, not million. It was (and still is) a world record for a firm of leisure boatbuilders.

Leading German sailing magazine *Yacht* wrote of Herrmann: 'The sale would have been satisfying – the ultimate crowning of the career of a self-made man who went from vacuum cleaner salesman to a multi-millionaire.'

Herrmann's timing was impeccable. In the financial crisis of 2008/9, annual production tumbled from 3,500 boats to less than 1,000. Like all other builders, Bavaria took a heavy hit. Then Bain sold control of the company, for an undisclosed sum, to US private equity investors Anchorage Advisors and Oaktree Capital Management in 2009. In just two years, Bain probably lost a packet.

Since then, production has recovered – albeit not to 2007 levels.

The split has grown to about 60% sailboats and 40% powerboats, and in 2014 Bavaria added cruising catamarans to its portfolio, buying the French Nautitech company – so it's well positioned to move onwards and upwards.

Today Bavaria Yachtbau GmbH has about 600 employees in its Giebelstadt factory that covers more than 656,000sq ft with approximately 230,000sq ft of production area.

Dramatic changes

Bavaria's history and success splits into three periods. On the sailboat side, these coincide with the company's involvement with

three different design teams: in the early days Axel Mohnhaupt, in the glory days J&J, and now Farr Yacht Design.

Mohnhaupt was a successful designer, but little known outside Germany. The numerous Bavarias he produced during the '80s are his major claim to fame, although he was also involved in successful America's Cup campaigns, including the 1974 winner *Intrepid*. His Bavarias were more akin to the sportier Scandinavian yachts built at that time: sleek lines, an abundance of woodwork down below, a 'hand finish' and a high price. Mohnhaupt's popular **42 Lagoon** sold – when new – for more than a Moody of comparable size, and it was quite heavy. This showed Bavaria's aim in the '80s to produce a quality yacht with a spacious interior. I recall a 42 that my father chartered in the UK: it was an impressive piece of kit and sailed well.

Contrary to popular myth occasionally spread on vituperative internet threads, however, not all these earlier models were appreciably heavier than later volume-produced Bavarias.

Mohnhaupt's lovely-looking **390 Lagoon** (11.74m on the WL), for example, weighed around 8,000kg compared to a 2000



Bavaria 390 Lagoon – second-hand examples from around £35,000

Sailing Scenes

J&J-designed 40 (9.42m on the WL) at 7,902kg or a 2011 Farr-designed 40S (10.75m on the WL) at 8,140kg. So look carefully when considering buying an older Bavaria. There have been so many models down the years, several of whose names are confusingly similar. Some are 'makeovers' based on previously used hulls. It's worth seeking out a Mohnhaupt-generation boat to see the differences.

Dramatic changes were set in motion when Bavaria went to J&J (Jernej and Japac Jakopin) for its new designs. J&J worked in Slovenia with Seaway, a specialist boat development company. This unique dual service made J&J and Seaway the world's leading providers of design, engineering and tooling to major boatbuilders including Brunswick, Bénéteau, Ferretti, Azimut and Bavaria.

The arrangement meant that the boat design, plugs, moulds and pre-production development came from a single source.

Japac Jakopin explained to me: 'We started to work for Bavaria in November 1992 as exclusive supplier of design, engineering and tooling. Up to 2008 we designed, engineered and toolled 89 Bavaria models, sail and power. Sales went from €11million in 1992 to €279million in 2006/2007.'

'J&J came with marketing ideas, designed the boat with input from Herrmann, and engineered/toolled the new model. Improvement in productivity with every new design, and very fast time-to-market – typically six months – were crucial.'

The time-to-market element was particularly significant. The ability to contract out pre-production work and thus concentrate on efficient manufacturing back at base is a priceless asset to any boatbuilder. It enabled Bavaria to grow at prodigious speed and become a dominant force in both private and charter markets.



Bavaria Yachts

The new Bavaria 46 Cruiser, the 2015 Yacht of the Year (Family Cruiser) award winner, is designed by Farr

Charterers' favourites

Charterers have played a large part in the Bavaria story. From the Med to the tropics, you'll find fleets of Bavarias. Andrew Thompson of Horizon Yacht Charters told me: 'Horizon has about 60 Bavarias in charter in the Caribbean, and they have held up very well indeed.'

Amy Nielson of Sailing Holidays is also a fan, saying: 'They are very popular bareboat charter yachts, and a number of our suppliers have a selection of both new and old designs.'

'Our customers' favourite is the **Bavaria 46**, launched in 2007. The four-cabin layout – three with doubles, one with twin bunks – plus two heads offers brilliant space for a larger family or two families sharing. This eight-berth Bavaria is popular – no one else currently offers a modern design of this nature.'

When I asked Japac which were his favourite Bavarias, he replied 'the **Bavaria 44** from 1993. The most successful were the 35 Holiday and the 49, with thousands built.'

Bob Clements – who runs the Bavaria Owners' Association in the UK – put me on to 44 owner William Bradley, who told me: 'We



Peter K Poland

A Bavaria 50 cruiser on charter in Greece

bought ours in 2003. We wanted a comfortable boat to spend the summer on that could be handled by the two of us. Made in 1994/5 to Lloyds spec, she was well built and solidly rigged. She needs at least 9 knots to get going and, as we prefer to sail fairly upright, we start to reef the in-mast main at about 15 knots. We have come back across Biscay in a Force 6, and she sailed well and fast. We spend most of our summers cruising the west coast of France down as far as the Gironde from the Helford. The only major problem we have had was a leak through the rudder bearing when doing over 8 knots. This was cured with a minor modification.'

'The accommodation is excellent and very comfortable with just the two of us. There are three double cabins; but no really good sea berths for extended cruising.'

'There is a lack of storage space for long-term living on board and we use one of the cabins for any spare sails and our bikes. The most we have sailed in is 30 knots, and she behaved quite well. Because the sails are large, my wife needs an electric winch handle to do any reefing. An

Autohelm 6000 with hydraulic drive makes short-handed sailing easy.' All in all, then, the 44 is a good family cruiser.

There are, however, plenty of Bavarias that venture further afield. In the 2013 ARC, 11 entered and all completed the course, while a 42 won its division and was third overall in the 2014 event.

Then I came across Dave Ungless who is currently circumnavigating the globe in a 50 Ocean (aft cockpit version).

He told me: 'Sanna was built in 1999. She's laid out for short-handed sailing and the previous owner was 75. I bought the boat because she was recommended by a marine surveyor.'

'We have added a rear arch for solar panels and a wind generator plus flexible solar panels on the coachroof. We also added a watermaker in Turkey that produces 170lt an hour from our generator and this has been a real boon on long-distance voyages.'

'I've made many other mods because that's what I like doing.'

'Performance-wise, what can I say? She's made five long ocean passages of nearly 3,000 miles each, and we're still alive. We're



Sailing Scenes

Bavaria 44 – available second-hand from £38,000



Nick Mercer

Nick Mercer's Bavaria 46c *Impala* in Cocos Keeling

circumnavigating eastwards so we need a vessel that sails well upwind; and she does just that.

'She performs really well and is an enigma to those "experts" who like to knock Bavarias – and there are plenty of those around. We've been in a number of bad storms and have taken two knockdowns along the way. We've run under bare poles twice and both times we let the Raymarine autopilot take the strain without problems, although on one occasion we deployed our Jordan series drogue. We also hit a reef up in Alaska, but we're still floating.

'We've had problems just like any other sailboat, but it's rarely the Bavaria element that causes grief. It's usually engine, electronics etc. Of course, there has been wear-and-tear maintenance along the way: the biggest job was replacing rudder bearings after a few thousand miles' usage.

'The biggest design drawback is a rather low diesel tank capacity. We counter this by carrying jerry cans along the deck, which worries me from time to time in bad weather. She also creaks and groans a little in big seas.' Want to learn more of Dave's adventures?

You'll enjoy browsing his website, www.sanna-uk.com.

UK Bavaria dealer Richard Hewett then put me on to Nick Mercer, a **Bavaria 46c** owner also enjoying a circumnavigation. He bought his 46c in 2005, telling me: 'I surveyed the market and decided that buying an expensive brand was financially a poor choice as the initial depreciation would be similar to a significant percentage of the purchase price of a mass production boat.

Impressive build

'I chose the Bavaria 46c as it seemed the best made. I had never owned a boat before, instead sailing extensively with friends on deliveries and charters. I turned up for the test sail and the wind rose towards 35-40 knots.

'The skipper suggested postponing, whereas we were delighted to be able to put the boat through its paces in stronger conditions. This test reinforced my feeling that I had chosen the right boat. In addition, the interior was light and bright, whereas many boats still favour the traditional dark wood and dark blue upholstery.'

And how's the voyage going? I



Sailing Scenes

Bavaria 46 – second-hand prices from £56,000

asked. 'Very well. I've logged 47,000 miles so far. I left over seven years ago and have spent most of it in the North and South Pacific and the Far East. She is a good all-round boat. On the passage across the Indian Ocean from Cocos Keeling to Rodrigues in 15- to 30-knot winds we averaged 7.4 knots over 2,000 miles. In 40 knots plus the boat handles well and safely: however, it's difficult to make much headway to windward in 40 knots. Anyway, why do it?'

Of course Nick added gear to his standard boat.

'I fitted *Impala* out before I left and have made modifications since. This fit-out included a stern arch for two solar panels, two wind generators and aerials for the Sea-me, AIS transmit, sat phone (Iridium) GPS, Wi-Fi booster etc. I also incorporated simple davits in the design. I have an ICOM SSB, watermaker, freezer, Raymarine plotters, radar and instruments.

'My tender is a lightweight RIB and I have two outboards. I also take safety seriously, having a series drogue, GPS EPIRB that can be switched on and off, and a liferaft to Solas B.'

Now 66, Nick says: 'I plan to get

to Europe in summer 2016 after eight years on this adventure... and who knows after that?'

I also heard from Chris Francis, who gives credence to Bavaria brand loyalty. He started in 1999 with a new 42.

'We spent a year looking on the second-hand market, but were disappointed with the way people looked after their boats, so decided on "new".' he said.

'We were looking for something with less maintenance that sailed well with a good galley and chart table, and were not disappointed by the 42. We had five years of extremely good sailing with *Aqualina* from Germany to the Channel Islands on a number of occasions, but we decided that she was too small for us so we traded up to a Bavaria 50 in 2004.

'*Aqualina 2* was a great boat with huge space down below. She was very well built but had a lot of weather helm in certain conditions, which was sometimes irritating.'

Chris then changed boats again.

'This time we decided on a boat that was easily handled by one or two people and which would be fully loaded up with all necessities for long-distance sailing, which is





A Bavaria 45 Cruiser competing in the 2014 Round the Island Race



The new Bavaria 46 Vision

one of our ultimate aims. We saw the new Farr-designed **46 Vision** and were very impressed, so we switched again and have not been disappointed.

'The difference in the hull design has made a vast improvement to the overall performance of the boat. She has zero weather helm, and the configuration of the sheets back to the cockpit makes single-handed sailing simple. The layout down below is great for two people and gives good additional accommodation for guests. The water tanks are placed in the bilges next to the keel, so give additional ballast in the right place!'

Chris recalled one sail when he logged 13.9 knots reaching up Black Deep, eventually beating into Harwich at 8.5 knots.

'The boat is solid as a rock, and the additional strengthening in the new Farr design is really noticeable. There have been no structural issues with any of the boats, just the normal small ones with bolt-on stuff which are easily rectified.'

Sails like a witch

Which brings us onto the era when Farr took over designing in 2009. *Sail* magazine grabbed an early boat, testing it in the Caribbean, saying; 'We had ideal conditions outside Grenada's True Blue Bay – a strong 20-knot trade wind and a commensurate lumpy sea. The **45 Cruiser**, to put it bluntly, sails like

a witch and revelled in this environment. Certainly it is one of the better-performing mass-production cruisers I've ever been aboard. We made 7.8 knots sailing at a 35° apparent wind angle, which increased to over 8 knots at a 40° angle and as high as 9.3 knots when we bore away to 60°.

'Thanks to the twin rudders, which are situated well outboard, you can easily maintain control of this super-wide craft even when it's heeled over on its ear. The Cruiser 45 is comparable to most other mass-production cruising boats as far as its cockpit, deck and interior layouts are concerned. Its sailing performance, however, at least in moderate to strong wind, is exceptional.

Great value

'The boat represents great value for cruisers looking for both charter-boat comfort and performance-boat speed.'

Despite *Sail* magazine's reservations on the BMW Group Designworks USA's styling, that's a rave review!

Bavaria was not slow to rectify the styling, employing Mark Tucker's British firm Design Unlimited to work on new models.

Mark told me: 'Our first commission was the exterior and interior styling for the Vision series. This led to us doing the styling for the current Bavaria sailing boats,

with all their exteriors styled by us and the interiors by us and Bavaria's in-house team. On the exterior we worked hard to get more light into the interiors, and we introduced clean lines to enhance the heritage of the earlier Bavarias.

'The interiors had very hard edges so we made them more comfortable for use at sea. It is our aim to make Bavaria a leader in this sector of the market through intelligent design and engineering. We own a Vision 42 and are constantly testing and thinking of new ideas.'

The dual move to Farr and Design Unlimited clearly works. Andrew Thompson of Horizon Yacht Charters said: 'The makeovers between 2013 and 2015 rectified the coachroof aesthetics, and I think Bavaria again has a very good-looking range with performance to match.'

Proving the point, the Cruiser 46 was elected European Yacht of the Year in 2015 in the Family Cruiser category – a singular honour that bodes well for the new range of seven cruisers from the 33 to the 56, two Visions, the economy Easy 9.7 and racing B/One. And of course the powerboat range gets ever bigger.

Second-hand market

If you want to buy an older Bavaria, you have a huge choice. As with any yacht, a survey is essential.

An experienced surveyor told me: 'They're much of a muchness with other main production boats. However, over the last 15 years the bulkheads and inner tray liner mouldings have been bonded to the hull with GRP, in addition to the bonding paste used by some builders, which is no bad thing.'

He advised checking the keel attachment on earlier models with lead keels, these having a smaller 'footprint' than iron keels; aluminium rudder stocks and trunkings; watertightness around rig tie rods and stanchion bases; and the condition of old skin fittings and seacocks. He concluded: 'A Bavaria is a great value-for-money boat. I would have no qualms owning one, for the right money, but get a surveyor who knows Bavarias – then you'll be fine.'

Thousands of buyers can't be wrong. Bavarias stand up to the rigours of chartering, give sailing families fun afloat and voyage across oceans. The Bavaria Owners' Association is an added bonus, organising events and giving help and advice.

As my surveyor friend says, if a Bavaria appeals, find a model that suits your needs at a price that makes sense and get her surveyed – then go sailing!

NEXT MONTH

From Westerlys to superyachts: the designs of Ed Dubois

Sailing Scenes

Bavaria Yachts

Sailing Scenes

Bavaria 42 – available second-hand from £50,000



Honest Advice · Reliable Service · Quick Despatch

T +44 1502 716993

F +44 1502 711680

E info@asap-supplies.com

W www.asap-supplies.com



12VOLT PLANET

Auto & Marine Electrical Components

Full range
available
victrol energy

**Electrical components,
parts and accessories for
all your boat wiring needs**

- Full range of UK-made tinned copper cable
- Connectors, terminals, fuseboxes, busbars, switches
- Battery management products
- Interior and exterior LED lighting
- Web & phone orders – fast delivery
- Trade enquiries welcome



www.12voltplanet.co.uk

Tel: 01865 236446 Email: sales@12voltplanet.co.uk

[facebook.com/12voltplanet](https://www.facebook.com/12voltplanet) twitter.com/12voltplanet

SUPER QUALITY SPONGEE ON AN ATTACHABLE BUNGEE CORD

- Never lose your sponge to the environment again.
- Non-scratch silicone fixings for worry free cleaning.
- Super durable high grade washing version
- Longlasting high quality products
- Convenient to use and buy



PERFECT STOCKING FILLER

**ONLY
£6.99**

MADE IN THE UK


BUY DIRECT FROM

WWW.BUNGEE-SPONGEE.COM

BUNGEE SPONGEE
 PROTECTED UNDER EUROPEAN COMMUNITY REGISTERED DESIGN NO. 032010678-0001.
 BUNGEE SPONGEE IS A REGISTERED TRADE MARK

I SURVIVED

"In a matter of moments we were fighting for our lives in a tiny life raft. We were being thrown around and battered by an angry sea alone. We were rescued 950 miles from land."

- Len Rorke



THE SCIENCE **ACR** OF SURVIVAL

Like Len, more than 35,000 people have survived potentially fatal situations with the technology used by ACR beacons to instantly alert Search and Rescue. Read some of their stories at www.ACRARTEX.com/survivor-club

RENOVO®

BREATHE NEW LIFE INTO YOUR BOAT COVER

RENOVO BOAT CANVAS CLEANER



As recommended by PBO Magazine.
"The hood came up almost like new, I was very pleased with the result"



RENOVO ULTRA PROOFER

Re-establishes the original "as new". Waterproof weather barrier. PBO "After the hood had dried, any water splashed on it gathered in globules and ran off it; just like a newly polished car!"
"thoroughly recommended"

RENOVO PLASTIC WINDOW POLISH

Restores transparency and removes cloudiness.



RENOVO BOAT CANVAS REVIVER

available in dark blue, will re-colour and re-condition canvas fabric to look like new.



RENOVO BOAT VINYL CLEANER

Removes those stubborn deposits of everyday grime, salt, sap and bird dirt thus refreshing the appearance and helping preserve the condition of vinyl.

RENOVO BOAT VINYL ULTRA PROOFER

Protects and conditions vinyl against stains; also includes a UV SPFactor in its formulation.

www.renovomarine.com

CREDIT CARD HOTLINE 01444 443277

All product P&P prices are available on the website

Vehicle Wiring Products

"We supply a comprehensive range of wiring products for repair, modification or complete rewire to your boat"



Free Catalogue!

Visit our Website, phone or email for a free catalogue
www.vehicleproducts.co.uk

Tel: 0115 9305454 Email: sales@vehicleproducts.co.uk
Vehicle Wiring Products Ltd, 9 Buxton Court, Manners Ind Estate, Ilkeston, Derbyshire, DE7 8EF

THE GREAT UK ANTIFOULING SHOWDOWN

20 paints tested in 13 UK locations: which works best where you keep your boat?



Welcome to the biggest and most in-depth test of antifouling paints ever carried out by a magazine in the UK.

Previous tests have focused solely on one location, but as fouling conditions vary greatly between ports and harbours around the coast, we reasoned it would be of far more use to boat owners around the country if they could draw on some test results closer to home when choosing their antifouling paint from the

bewildering range of options out there. We spent two weeks painting our plywood test panels, in the process consuming 350m of masking tape, 15lt of primer and 40 (cheap) paintbrushes, not to mention the 20 antifouling paints themselves. And now, seven months and 4,400 miles of driving later, here are the results of our round-Britain antifouling test.

How we tested them

We primed our 26 test panels with International's Interprotect Epoxy Primer before using a tie-coat primer where required and

applying each of our antifoulings with the recommended number of coats (two, in most cases). We applied the paints in strips, with an 11mm unpainted strip between each paint, acting as a control surface. We restricted the test to single-pot eroding paints in blue: these are the most popular antifoulings for cruising boats. With the paint dry, we loaded the boards into a trailer and drove them round the country, installing them facing the sun where possible and aligned with a modest tidal flow to simulate their normal usage as much as

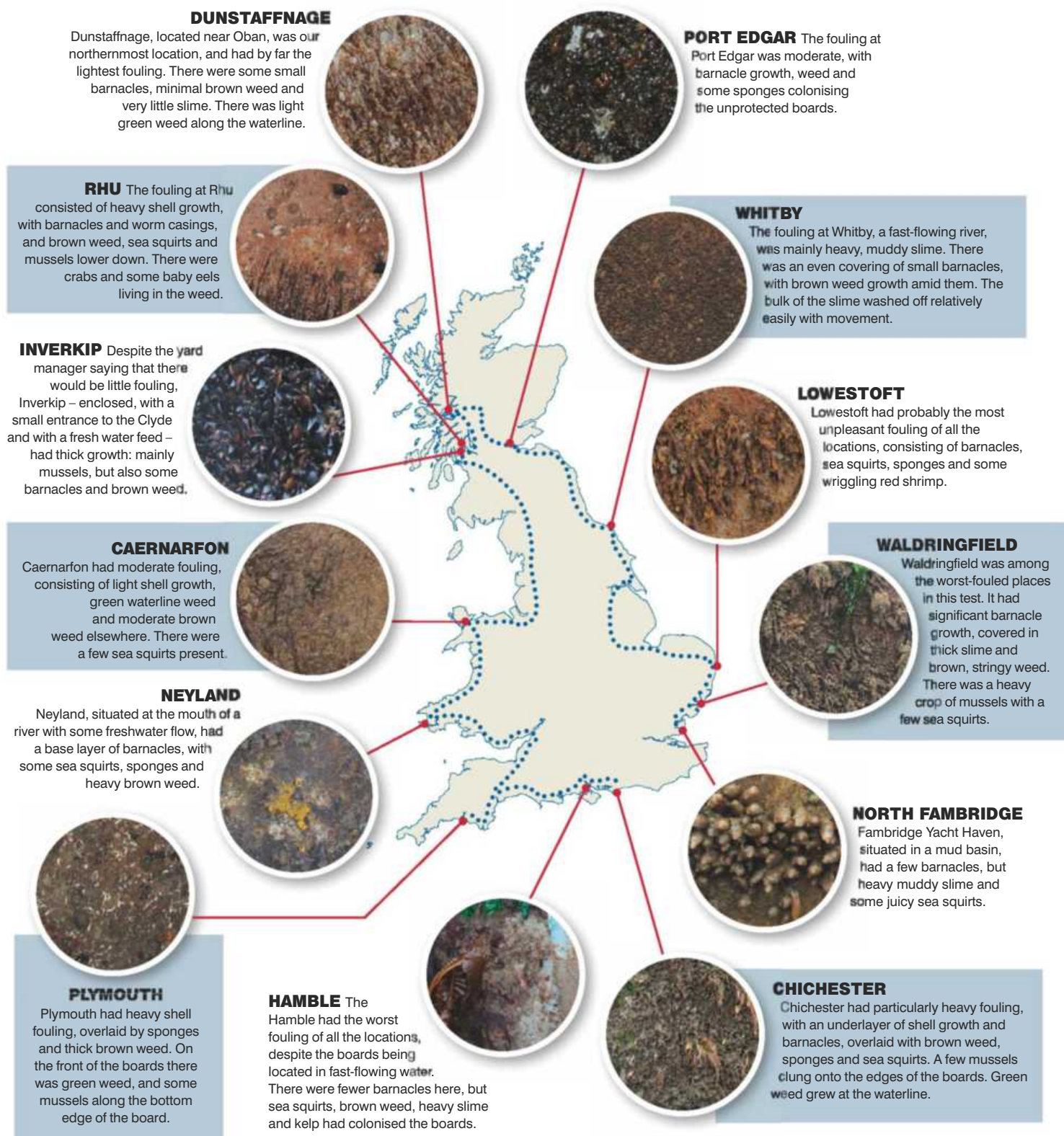
possible. We installed the boards in late March, returning in early October to remove them and inspect the results.

There were big differences between paints on the boards in terms of the amount of fouling they retained. What was telling was that even the worst-performing paints showed a massive improvement over the unprotected control surfaces – so even a cheap paint is better than nothing. However, the best performers were in a league of their own: read on to find out which paint you should choose.

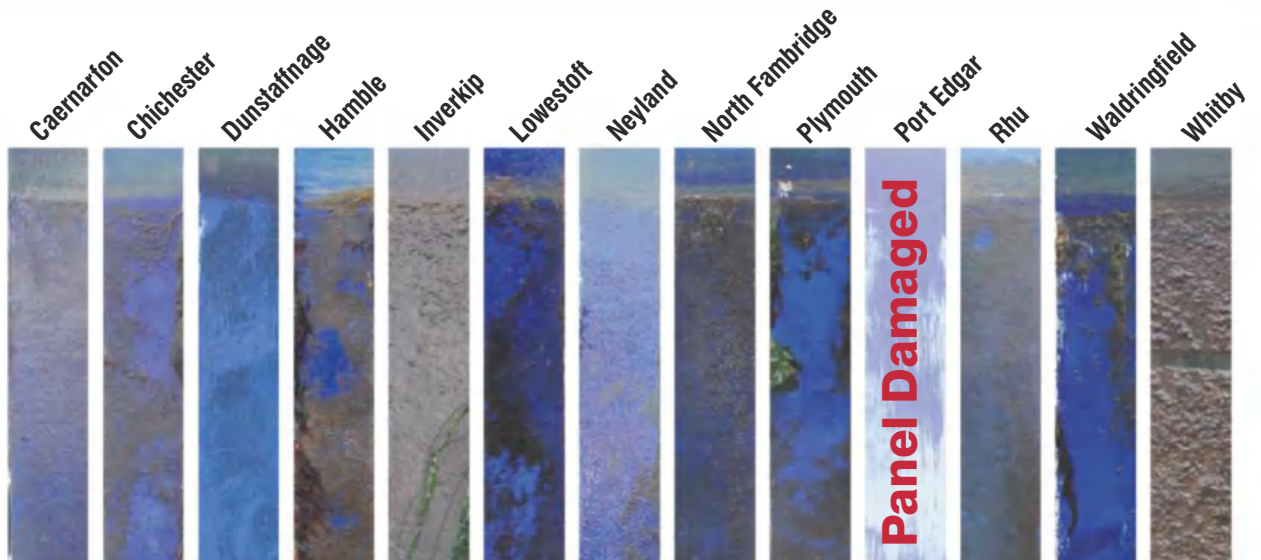


Do you need antifouling?

We left the backs of our test boards as bare primer to act as a control. The good news is that without exception, every antifouling paint showed a marked improvement compared to the bare panels. Fouling differed in a big way between each of our 13 locations, from Dunstaffnage, which had minimal growth, to Hamble, which showed by far the worst. Lowestoft and Waldringfield, on the East Coast, were also bad. Whitby and Inverkip had very heavy slime, while Neyland and Caernarfon saw moderate shell and weed growth.



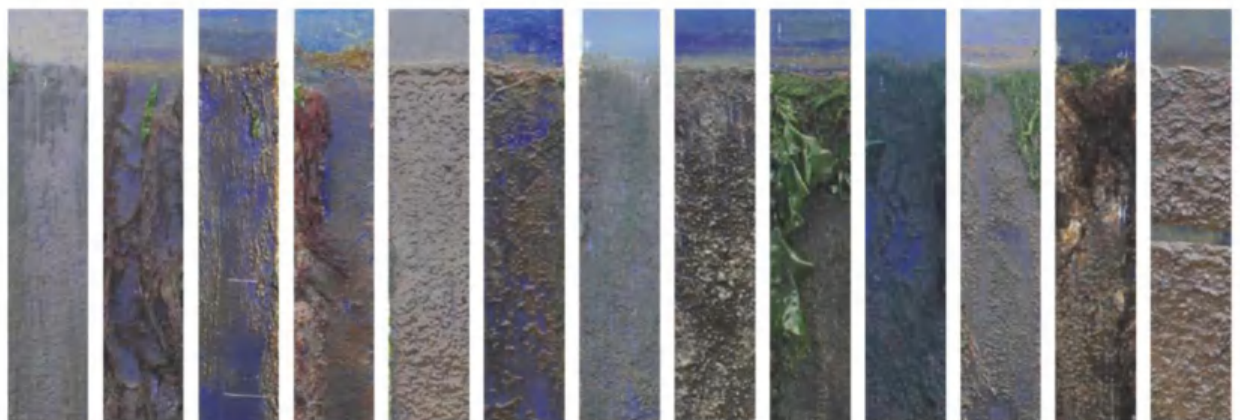
1. Hempel Cruising Performer
£49.95/2.5lt



2. Precision Premium
£95.09/2.5lt

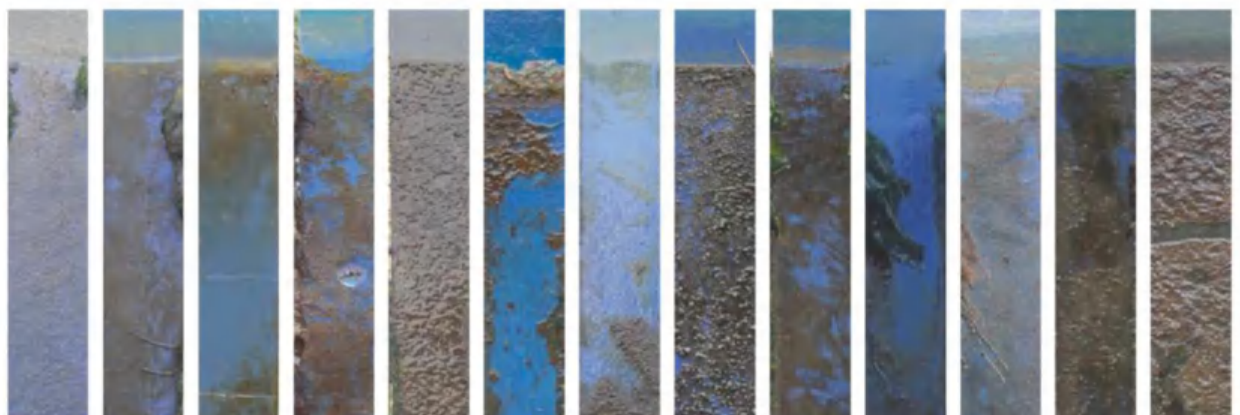


3. Akzo Nobel Nautical Eroding Antifouling
£44.99/2.5lt

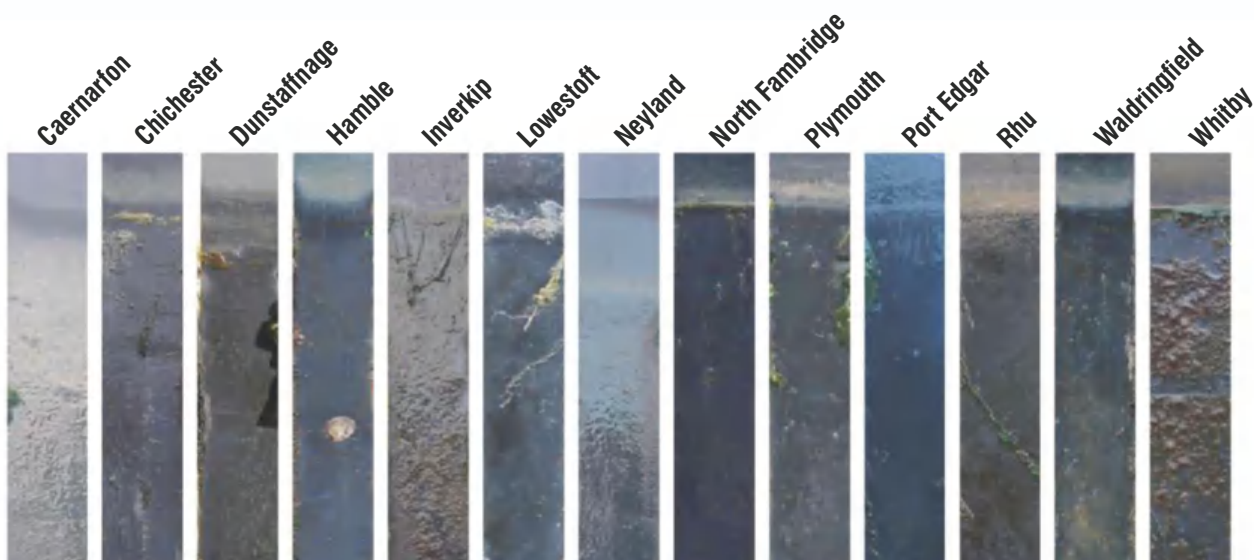


4. Boero Mistral Nf
£64.95/2.5lt

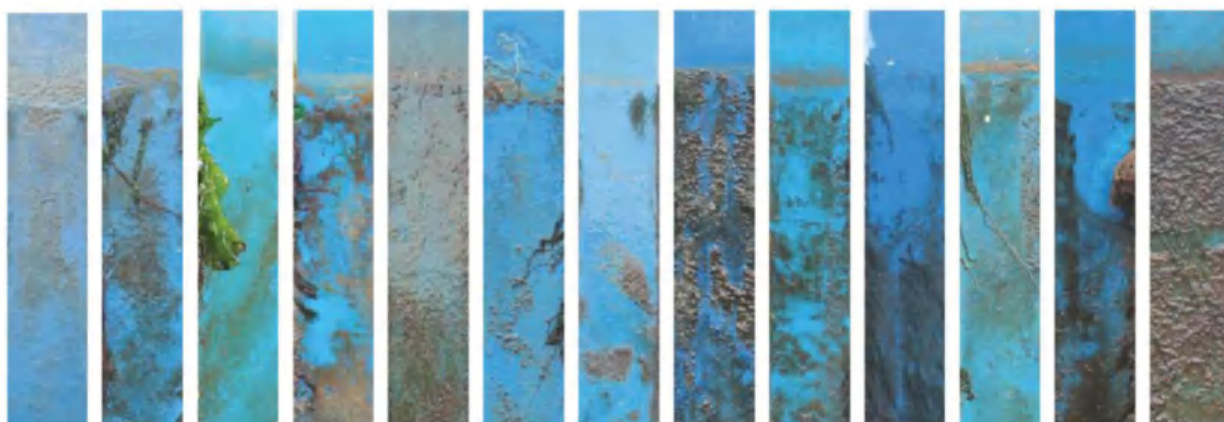
Available from
www.allboatcare.co.uk



**5. Seajet 038
Taisho
(available 2017)
£TBA**



**6. Teamac
Antifouling 'D'
Plus
£69/2.5lt**



**7. International
Micron Extra
£89.95/2.5lt**



**8. Nautix
Antifouling
Performer
£70.32/2.5lt**



Caernarfon Chichester Dunstaffnage Hamble Inverkip Lowestoft Neyland North Farnbridge Plymouth Port Edgar Rhu Wairdingfield Whitby

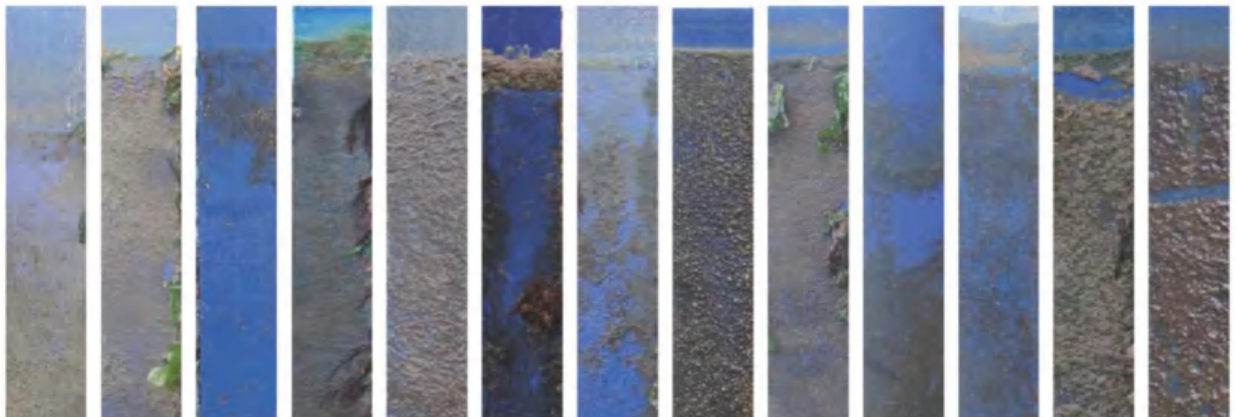
9. Seajet 033 Shogun
£87.08/2.5lt



10. Flag Performance Extra
£59.99/2.5lt

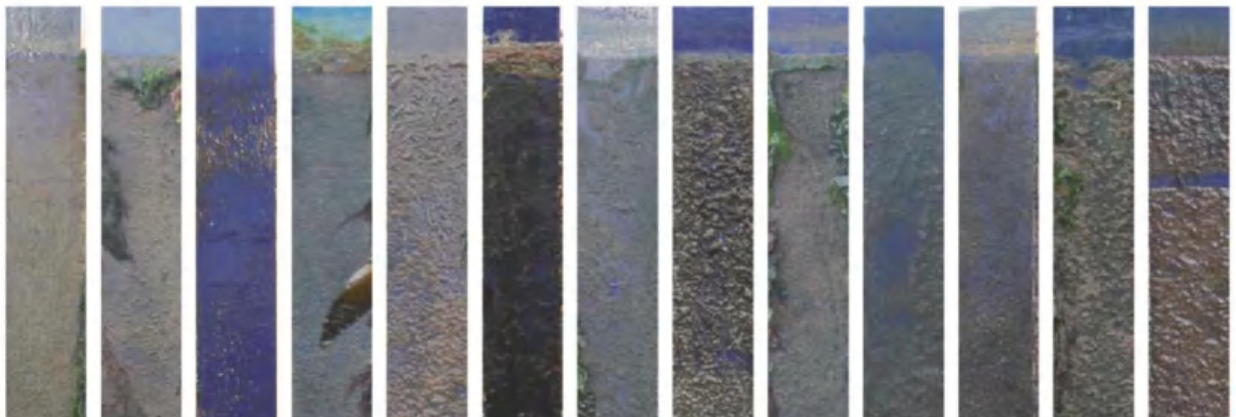


11. Seajet 031 Samurai self polishing antifouling
£57.18/2.5lt

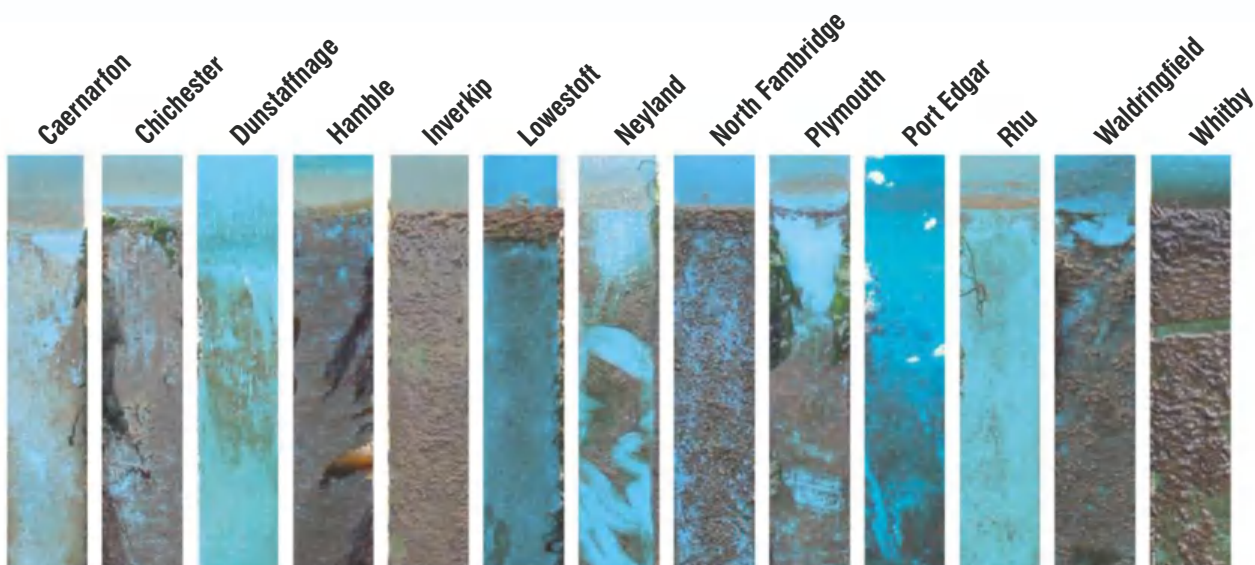


12. Boero Scirocco Nf
£49.95/2.5lt

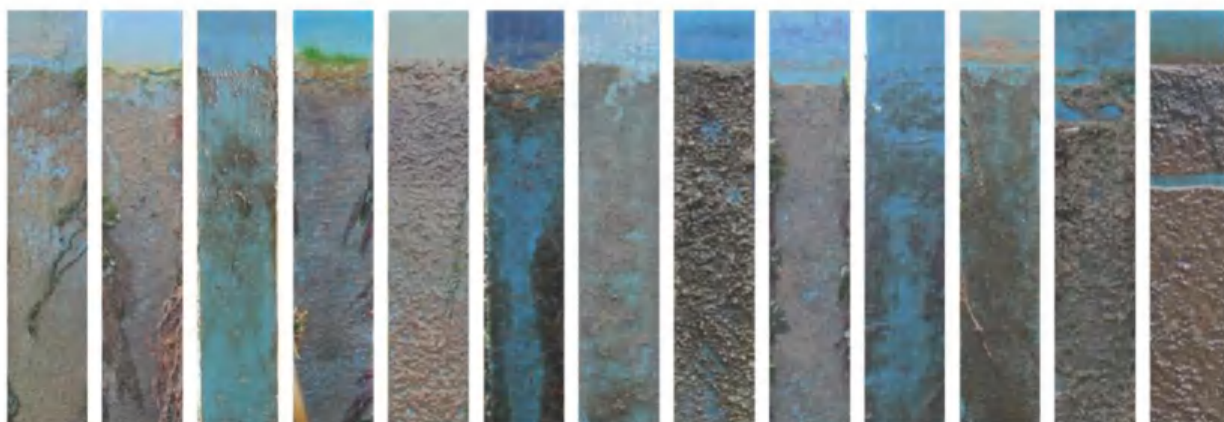
Available from
www.allboatcare.co.uk



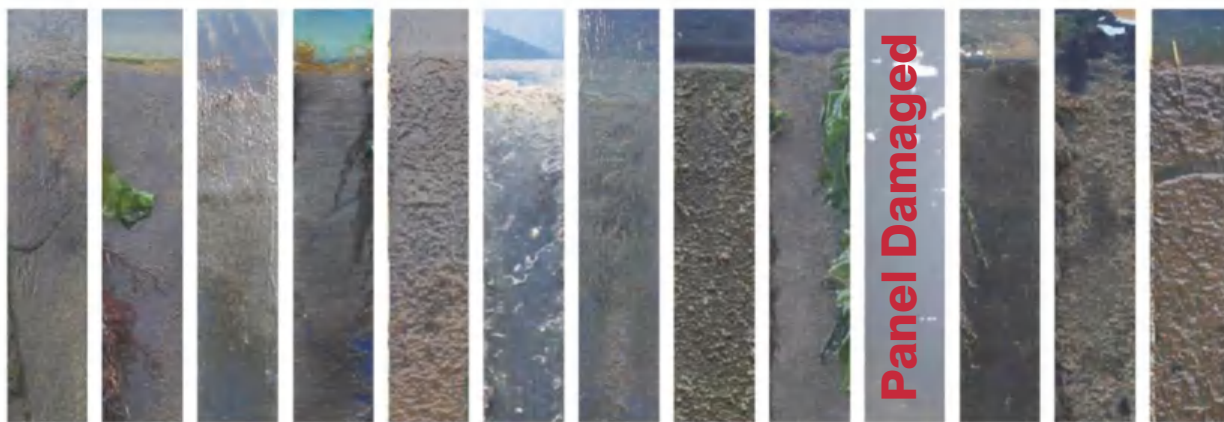
13. International Cruiser Uno
£69.95/3lt



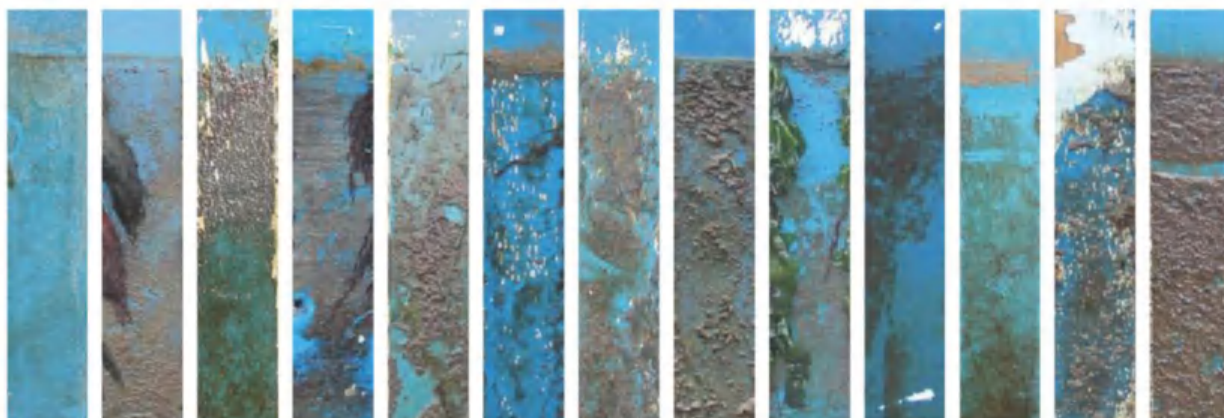
14. Flag Cruising Antifouling
£34.99/2.5lt



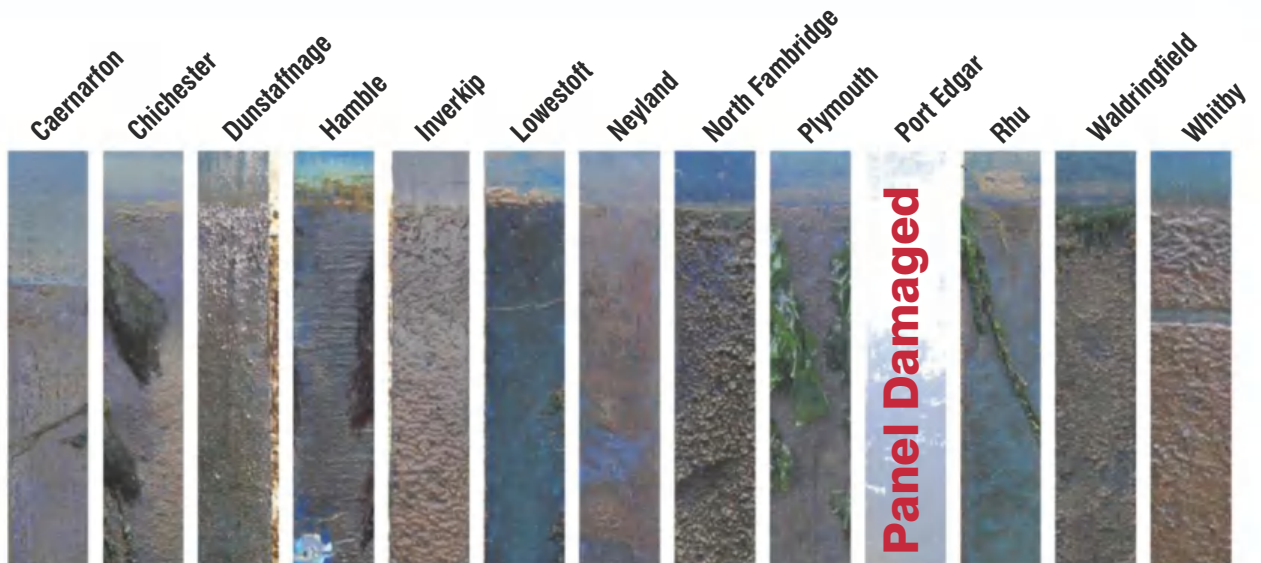
15. Hempel Tiger Xtra
£59.95/2.5lt



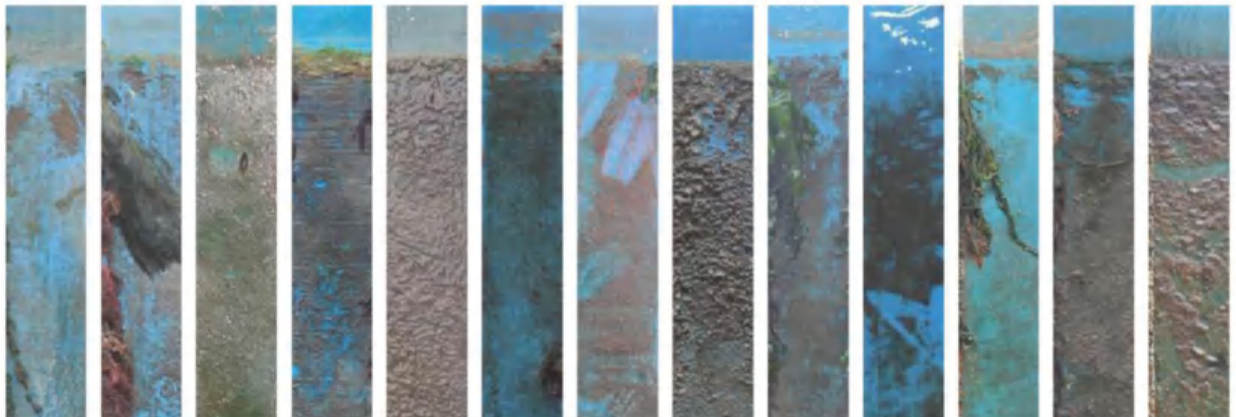
16. Nautix A3 Antifouling
£106.34/2.5lt



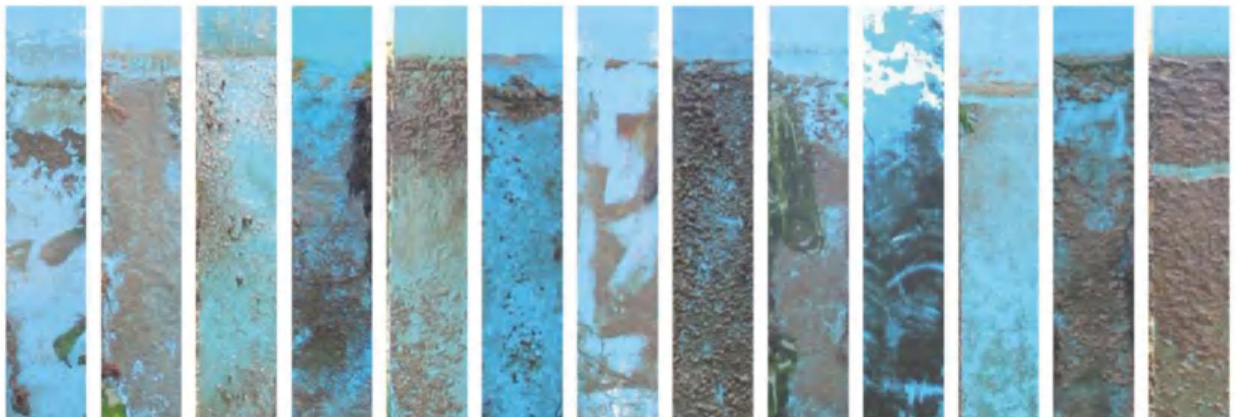
17. Jotun Mare Nostrum Antifouling
£67/2.5lt



18. Precision Performance Antifouling
£49.95/2.5lt



19. Seago High Performance Antifouling
£59.95/3lt



20. Jotun NonStop Antifouling
£90.45/2.5lt





NORTH WALES – CAERNARFON

Fouling: Moderate

In Caernarfon the better paints had only light slime, while the worst-performing had heavier slime and some brown weed growth. There was no shell growth on any of the paints.

TOP 5 PAINTS

1. Seajet 033
2. Micron Extra
3. Teamac 'D'
4. Cruiser Uno
5. Nautix A3



SOUTH WALES – NEYLAND

Fouling: Moderate

Neyland had some heavy slime which had been visited by some local mullet, leaving their distinctive smear marks – also a useful test of how well the fouling was attached.

TOP 5 PAINTS

1. Hempel C.P.
2. Seajet 033
3. Micron Extra
4. Teamac 'D'
5. Cruiser Uno



SCOTLAND – INVERKIP

Fouling: Moderate

Inverkip's boards showed thick slime, but none of the paints had green weed or shell growth, unlike the untreated surfaces. Some differences were evident, with Seago's High Performance best.

TOP 5 PAINTS

1. Seago H.P.
2. Nautix A3
3. Precision P.
4. Teamac 'D'
5. Nautix A.P.



SCOTLAND – RHU

Fouling: Light-moderate

Growth in Rhu was relatively light on the better-performing paints. Seajet's 033 was best here, with International Cruiser Uno, Teamac's 'D' and Micron Extra also doing well.

TOP 5 PAINTS

1. Seajet 033
2. Int. Cruiser U
3. Teamac 'D'
4. Seajet 038
5. Micron Extra



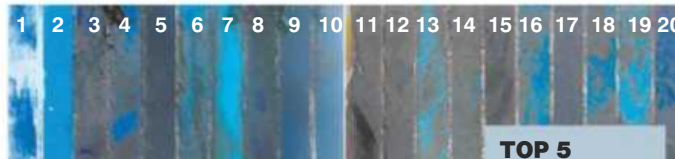
SCOTLAND – DUNSTAFFNAGE

Fouling: Light

Dunstaffnage had the coldest water of all our locations and the least slime. There was no weed or shell growth on the painted panels, and some differences between most and least effective paints.

TOP 5 PAINTS

1. Hempel C.P.
2. Precision P.
3. Seajet 038
4. Seajet 033
5. Int. Cruiser Uno



SCOTLAND – PORT EDGAR

Fouling: Moderate

In Port Edgar, the boards were damaged by a tyre fender tied to the pontoon by a workboat crew, so four samples were rendered invalid, unfortunately, with paint and fouling wiped off.

TOP 5 PAINTS

1. Seajet 033
2. Micron Extra
3. Seajet 038
4. Jotun NonStop
5. Precision Prem



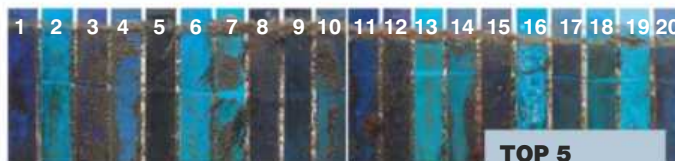
NORTHEAST ENGLAND – WHITBY

Fouling: Heavy slime

Fouling in Whitby consisted of heavy slime. Seajet's 033 and 038 were far and away the best, with the fouling washing off to leave a clean surface. Micron Extra was also effective, but not to the same degree.

TOP 5 PAINTS

1. Seajet 033
2. Seajet 038
3. Micron Extra
4. Cruiser Uno
5. Teamac 'D'



EAST ENGLAND – LOWESTOFT

Fouling: Moderate

The slime at Lowestoft was underpinned by some heavier growth in places. There were big differences in performance, with colonies of small shrimp inhabiting the heavier areas of slime.

TOP 5 PAINTS:

1. Seajet 038
2. Seajet 033
3. Seago H.P.
4. Hempel C.P.
5. Flag Perf. Extra



EAST ENGLAND – WALDRINGFIELD

Fouling: Moderate

As at Whitby, Seajet's 033 shed nearly all fouling as it was pulled out of the water, handing it best prize here. Hempel Cruising Performer, Nautix A3, and Seago's High Performance paints also did well.

TOP 5 PAINTS

1. Seajet 033
2. Seajet 038
3. Hempel C.P.
4. Nautix A3
5. Seago H.P.



EAST ENGLAND – FAMBRIDGE

Fouling: Moderate

In Fambridge, Seajet's 033 and 038 again shed most slime as the boards were removed. Micron Extra was fairly clean, with Flag Performance Extra and International Cruiser Uno doing well.

TOP 5 PAINTS

1. Seajet 033
2. Seajet 038
3. Micron Extra
4. Flag Perf. Extra
5. Int. Cruiser Uno



SOUTH COAST - CHICHESTER

Fouling: Moderate

In Chichester, Seajet's 033 was by far the cleanest, coming out almost slime-free. Micron Extra was a close second. Seajet 038 and Teamac 'D' were next best, with Precision Premium also doing well.

TOP 5 PAINTS

1. Seajet 033
2. Micron Extra
3. Seajet 038
4. Teamac 'D'
5. Precision Prem.



SOUTH COAST - HAMBLE

Fouling: Moderate

Seajet's 038 was best in the fast-flowing mouth of the Hamble, with their 033 product not far behind. Micron Extra was relatively clean, as was Teamac's D, with Jotun NonStop also moderately successful.

TOP 5 PAINTS

1. Seajet 038
2. Seajet 033
3. Micron Extra
4. Teamac 'D'
5. Jotun NonStop



SOUTH WEST - PLYMOUTH

Fouling: Moderate

Seajet's 033 performed best at Plymouth Yacht Haven, with 038 also doing well. Micron Extra was also a strong performer, with the same company's Cruiser Uno and Jotun's NonStop also doing well.

TOP 5 PAINTS

1. Seajet 033
2. Seajet 038
3. Micron Extra
4. Int. Cruiser Uno
5. Jotun NonStop



Boards were submerged during the summer months

PBO verdict

This is the biggest test we've ever carried out at PBO, with a significant investment of time, money and effort involved in buying, priming, painting, delivering and installing the test boards.

We were careful to install the panels as similarly in orientation, location and tidal characteristics as possible – facing the sun, and aligned to the tide to simulate a boat's mooring and occasional use. We were fortunate that only one set of panels suffered damage (in Port Edgar, where a tyre fender was tied on in front of the board, damaging the paint and removing the fouling from a few of the panels). Our host locations kindly monitored the boards and their growth throughout the year. When we took them out, in early October, the water was at its warmest and the fouling greatest. Any later and the fouling would have begun to drop off as the water cooled.

Of course, our static panels represent a 'worst-case' scenario – that your boat doesn't move all year. The more you use her, the better your antifouling will perform, and the less the fouling will adhere.

Some interesting results

With the results in, the 26 panels, 20 paints and 13 locations have generated a lot of data. Sifting through has shown up some interesting results. The most telling of all is that every paint tested showed a big improvement in fouling when compared to the control areas, which had heavy weed, shell and kelp growth. None of the paints



A board from Whitby as removed, showing how the slime ran off the two Seajet products, 038 and 033

had any barnacles or other shell growth, or any long fronds of weed – except in some cases along the waterline.

While no single paint kept everything fouling-free in all areas, what particularly surprised us was the dominance of one paint – Seajet's 033 Shogun was best in eight of our areas, with the company's 038, due to be released in 2016, also doing well.

These paints shed slime and other fouling so effectively in many places that when

pulled out of the water, they appeared clear.

Other paints also performed reasonably well. International's Micron Extra was a comfortably one of the top paints all around the country. Other good performers included Teamac Antifouling D plus, made by an independent family business located in the north-east, Precision Premium, also made by Teamac, and Nautix's A3. Seago High Performance also performed well in places. Hempel's Cruising Performer and Jotun's NonStop did well in some areas of the country. Boero's Mistral NF had some reasonable results, and Flag Performance Extra did well on the East Coast.

Increased regulation

Of course, most boat owners won't be interested in which brand is best all around the country: most boats stay put in their home port for most of the season, which is why it's best to look at the results for your location, or the nearest port to your own.

It's reassuring that the better paints on test proved mostly effective in keeping fouling at bay, as manufacturers have had to deal with increased regulation – especially the EU's Biocidal Products Directive, which has led to tweaks and changes in antifouling products.

Cost is another interesting factor. Paints seem to split into two camps – around £40-50 per 2.5lt tin and around £100 per tin. The circa £100 camp tended to do better than the circa £50 camp – the more expensive bracket, which often has greater concentrations of copper and other biocides, is likely to be more effective.

With thanks to: Southampton Solent University's Warsash Nautical College, Chichester Harbour Authority, Plymouth Yacht Haven, Neyland Yacht Haven, Victoria Dock (Gwynedd Council), Inverkip Marina, Rhu Marina, Dunstaffnage Marina, Port Edgar Marina, Whitby and Scarborough Harbours, Lowestoft Marina (ABP), Waldringfield Boatyard and Farnbridge Yacht Haven for their assistance with this trial.

A fair system of charges

After an embarrassing engine-starting failure on *Hantu Biru's* Scottish cruise, we opted to fit a conventional alternator and remedy a fault with the solar panel. David Pugh reports



In last month's issue, you might have read Ben Meakins' account of *Hantu Biru's* final sail in PBO hands. Our couple of days' cruise in the Kyles of Bute following Scotland's Boat Show was enchanting, but not without incident – namely, our engine failing to start when becalmed a cable's length from the Bute ferry at Colintraive.

I should point out that the fault here in no way lay with the engine, which hitherto had started with enthusiasm. Excuses are futile – the blame lay squarely with us. Since Southampton Boat Show we had suspected that the solar panel was no longer charging, as the battery monitor read zero charge where in the past it had shown a charge current of 0.1A or more, even in the dullest conditions. But, working to a tight timetable of boat shows, we hadn't found time to check the problem properly. As a result, after two shows and no charging, the battery voltage was down to around 12.6V, which nevertheless started the engine when we began our cruise after the show.

What we should have done is keep the engine running for an hour or so to give the battery a decent charge; but delighted by a quartering breeze, stunning scenery and a magnificent tranquillity, we switched it off. Night fell, and with twilight the breeze faltered – and so did the voltage. It was only after several attempts that we finally got the engine going with the starting handle and crept, darkness cloaking our embarrassment, into Caladh Harbour.

Unnerving voltages

Flattening our battery did, however, give us a chance to check out another aspect of a problem which had been worrying us for some time. When we installed the engine we fitted a 20A permanent magnet alternator, as these take up considerably less



At anchor in Caladh Harbour, cutting away sealant to get at the solar panel connections

room than conventional alternators and space was at a premium. However, despite fitting the regulator designed to accompany the unit, the voltage would reach nearly 16V, rising with the engine revs – far in excess of the safe limit.

Unlike a conventional alternator, which can be regulated by varying the current through the rotor electromagnets, a permanent magnet alternator generates all the time, the voltage rising with the engine revolutions. The regulator has to control the voltage and dispose of excess power somewhere, which can be done using load resistors or, in some cases, by briefly shorting the alternator coils. Our regulator appeared to do neither of these things, but I wondered whether our system would behave more rationally when it could dump all the power into a flattened battery. However, the voltage remained too high, the only difference being that the battery could accept more current.

We tried a spare regulator with the same result, so in Scotland we

had to accept some overcharging, mixed with backing off the throttle until the volts reached an acceptable level. Clearly this was no long-term solution, so when *Hantu Biru* returned to Poole for the winter we decided to try fitting a conventional alternator and find the fault with the solar panel.

Fixing the solar panel

Inspired by our problems the night before, I spent part of our morning at anchor in Caladh Harbour tracing the fault with the solar

panel. The indicator LEDs suggested that the regulator was functioning normally, but on disconnecting the panel there was no voltage present on the cable.

The connections to the panel are via a plastic box, sealed to the panel with sealant. I carefully cut the sealant away with a sharp knife and dug it out to reveal the connections, which seemed fine. A meter confirmed that the panel was still producing power – the fault must lie with the cable.

Tracing the cable through

FIXING THE SOLAR PANEL



I soldered a new, tinned cable to the panel ...



...and resealed the box with Aquaseal's mBond 395 high-strength polyurethane sealant

FITTING THE ALTERNATOR



On the old mounts, the regulator heatsink was too low



Swapping the mounts places it on top, out of the way of the starter



A joggle in one of the alternator mounts allows it to sit forward



Just enough clearance between the alternator and starter motor!

revealed the fault. The cable passes through the deck under the sliding hatch, almost exactly at the point where the front edge of the hatch sits when pushed fully back. Unbeknownst to us, the hatch edge had chafed through the cable insulation, and the salt water had made short work of both cores of the untinned copper cable.

The solution was simple. I soldered a new, tinned cable to the panel and resealed the box with Aquaseal's mBond 395 high-strength polyurethane sealant, which will hopefully be strong enough to resist kicking feet. We took the cable around the same route as before, but this time added a stop to the hatch (right), preventing it from touching the cable.

NASA had originally included a diode within the sealed box to stop the battery discharging through the panel, but as space is tight I omitted it and soldered in a new diode further down the cable, sealed with adhesive heat-shrink sleeving.



I fitted a new diode further down the cable, sealed with adhesive heat-shrink sleeving

Fitting the alternator

However carefully we measured, it wasn't until we had our hands on a suitable alternator that we could be certain whether it would fit. The problem area is around the starter motor and solenoid, which project upwards from the bellhousing just where our alternator needs to be. A short alternator such as the permanent magnet unit we first fitted presented no problem, but things were going to be tight with a deeper, conventional alternator.

Having downloaded its drawings and checked the fit as best we could, we bought the smallest alternator we could find: a 40A reconditioned unit from a Kubota generator for £65 on eBay. We tried slotting it straight onto the previous unit's mounts, but the protrusion of the internal regulator's heatsink on the back of the alternator fouled the starter solenoid.

Our next idea was to swap the mounts over so that the alternator pivoted on the opposite side. This showed more promise, placing the heatsink at the top and providing what looked like just enough clearance on the solenoid. However, the alternator pulley was fractionally too far aft to align with the crankshaft pulley – 2mm at most, but enough to shred the belt. I solved this by cutting one of the steel brackets we had made for the alternator pivot and re-welding it with a joggle in it, allowing the alternator to move forward by up to 4mm if necessary.

We were close to winning now, but a final offer-up showed we had virtually no clearance with the

solenoid housing. Changing the belt for one just 8mm longer completed the job – there's now about 10mm clearance when the alternator belt is tensioned.

Wiring changes

The wiring for the new system is simpler than the old, as we're using the regulator built into the new alternator. I was able to strip out the cables which originally led to the alternator from the regulator, the regulator itself and the output cables from the regulator. At the same time, I stripped out the solenoid we had installed for our abandoned electric stop system.

In their place, a single, short cable runs from the alternator output to the battery positive on the starter solenoid. The negative returns through the engine chassis, as before. The old



The engine back in position. The wiring is simpler and tidier than with the old system

regulator had a 12V feed switched from the ignition, which I reused for the excitation feed to the new alternator.

The charge lamp was slightly trickier: the old regulator provided a voltage to the positive side of the charge light, while the new one grounds the lamp. A minor modification at the electrical panel (moving the lamp ground to the switched live) solved the problem.

PBO conclusion



Our solar panel is once more trickling charge into the battery, and with the engine started the alternator charges at a steady 14.7V, controlling the current according to the battery's state of charge. An extra benefit is that the charge lamp, which used to flash on and off as the regulator struggled to control the power, now behaves as you would expect, lighting when you turn on the ignition but switching off once the alternator starts spinning.

ORDER FORM

Post the completed order form to: FREEPOST RTKA-YLJG-HAAK, Time Inc. (UK) Ltd, Rockwood House, 9-16 Perrymount Road, HAYWARDS HEATH, RH16 3DH. (No stamp needed)

YES! I would like to subscribe to Practical Boat Owner

☐ UK 6 monthly Direct Debit, pay only £18.99 every 6 months, saving 36% (full price £29.95) **TOP OFFER**

☐ UK 2 year cheque/cash/credit or debit card (26 issues), pay only £76.49, saving 36% (full price £119.80)

☐ UK 1 year cheque/cash/credit or debit card (13 issues), pay only £39.99, saving 33% (full price £59.90)

YOUR DETAILS:

Mr/Mrs/Miss/Ms: Forename:

Surname:

If you would like to receive emails from PBO and Time Inc. (UK) Ltd containing news, special offers, product and service information and, occasionally, take part in our magazine research via email, please include your email below.

Email:

Address:

Postcode:

Home Tel. No: (inc area code)

If you would like to receive messages from PBO and Time Inc. (UK) Ltd containing news, special offers, product and service information and, occasionally, take part in our magazine research via your mobile, please include your mobile phone number below.

Mobile:

Date of Birth: DD MM YYYY

GIFT SUBSCRIPTION

Mr/Mrs/Miss/Ms: Forename:

Surname:

Address:

Postcode:

CHOOSE FROM 3 EASY WAYS TO PAY:

1. CHEQUE

I enclose a cheque/postal order for: £ made payable to Time Inc. (UK) Ltd.

2. CREDIT/DEBIT CARD

Please debit my: ☐ Amex ☐ Visa ☐ Visa Debit ☐ Mastercard ☐ Maestro (UK only)

Card No.

Start Date (Maestro only) Issue No. (Maestro only) Expiry Date

MM YY

Signature:

(I am over 18)

Date:

3. DIRECT DEBIT: To pay £18.99 every 6 months by UK Direct Debit, please complete your details below:

PAYMENT DETAILS – DIRECT DEBIT

Instruction to your bank or building society to pay by Direct Debit.

For office use only: Originators Reference – 764 221



Name of Bank:

Address of Bank:

Postcode:

Name of Account Holder:

Sort Code:

Account No:

Instruction to your Bank or Building Society Please pay Time Inc. (UK) Ltd Direct Debits from the account detailed on this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Time Inc. (UK) Ltd and if so, details will be passed electronically to my Bank or Building Society.

Signature:

(I am over 18)

Date:

*When you subscribe by six monthly Direct Debit. Offer open to new subscribers only. Final closing date for all orders is 2nd February 2016. Orders purchased as a gift before 11th December 2015 will start with the February 2016 issue published in January. All gift orders purchased after this date will begin with the first available issue. Orders purchased for yourself will start with the next available issue – please allow up to 6 weeks for delivery. 8 weeks for overseas orders. The full subscription rate is for 1 year (13 issues) and includes postage and packaging. If the magazine ordered changes frequency per annum, we will honour the number of issues paid for, not the term of the subscription. Direct Debit offer is available to UK subscribers only. Credit/debit card charges will be taken in sterling. For enquiries and overseas rates contact magazinesdirect@quadrantsubs.com or call +44 (0) 330 333 0233. **The digital version comes free with the print edition of your subscription and is available strictly on a trial basis. Time Inc. (UK) Ltd reserves the right to withdraw free access to the digital version at any time. The Rewards scheme is available for all active print subscribers of magazines published by Time Inc. (UK) Ltd, free of charge. Digital subscribers also get access as long as the subscription has been purchased directly through the publishers at magazinesdirect.com. Full terms and conditions are available at mymagazinesrewards.co.uk. Time Inc. (UK) Ltd who publish PRACTICAL BOAT OWNER, will collect your personal information to process your order. PRACTICAL BOAT OWNER and Time Inc. (UK) Ltd would like to contact you by post or telephone to promote and ask your opinion on our magazines and services. Please tick here if you prefer not to hear from Time Inc. (UK) Ltd. Time Inc. (UK) Ltd may occasionally pass your details to carefully selected organisations so that they can contact you by telephone or post with regards to promoting and researching their products and services. Please tick here if you prefer not to be contacted. Time Inc. (UK) Ltd who publish Practical Boat Owner would like to send messages to your mobile with offers from carefully selected organisations and brands, promoting and researching their products and services. If you want to receive messages please tick here. Time Inc. (UK) Ltd would like to email you with offers from carefully selected organisations and brands, promoting and researching their products and services. If you want to receive these messages please tick here.

CODE CNH5

The magazine written by the experts who renovated *Hantu Biru*

Treat yourself or a great gift idea

Our unbeatable subscriber package:

- * Savings on the individual issue price
- * Every issue delivered to your door
- * Enjoy exclusive offers with Rewards
- * Every subscription includes access to the digital version for iPad/iPhone**



0330 333 4555

Quote code: CNH5

7 days a week from 8am to 9pm (UK time)

Christmas subscription offer

Subscribe today

FROM JUST

£18.99*

and have every issue delivered
to your home!



Monthly extras,
Exclusive for
subscribers.

Rewards

Every month enjoy new offers, giveaways and prizes at pbo.co.uk/rewards With access to our FREE rewards and to the digital version of your magazine, your subscription will pay for itself in no time.



Subscribe online at

www.magazinesdirect.com/CNH5



Complete
the coupon
opposite

THE DIRECT DEBIT GUARANTEE: This Guarantee is offered by all banks and building societies that accept instructions to pay Direct Debits. • If there are any changes to the amount, date or frequency of your Direct Debit Time Inc. (UK) Ltd will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Time Inc. (UK) Ltd to collect a payment, confirmation of the amount and date will be given to you at the time of the request. • If an error is made in the payment of your Direct Debit, by Time Inc. (UK) Ltd or your bank or building society you are entitled to a full and immediate refund of the amount paid from your bank or building society – If you receive a refund you are not entitled to, you must pay it back when Time Inc. (UK) Ltd asks you to. • You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.



A Saronic and Argolic odyssey

Richard and Janie Hare fly out to Greece to join friends aboard their Beneteau 331 for a 10-day cruise of the Saronic and Argolic gulfs



Clive and Tricia Sparrow aboard *Moineau* (French for 'Sparrow'), and...

... their guests **Richard and Janie Hare**



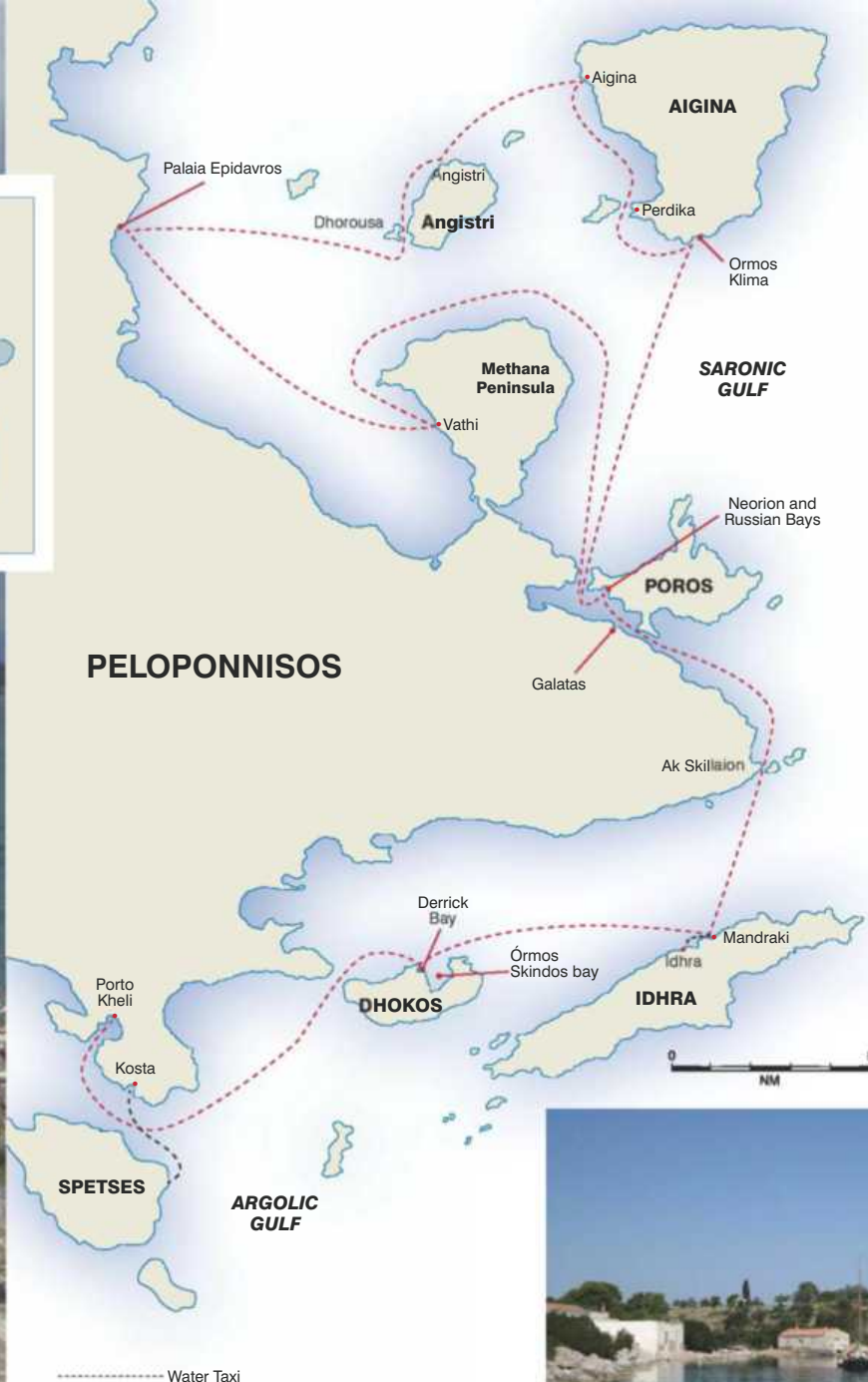
It was all going so swimmingly. The easyJet flight touched down in Athens right on schedule and we were no sooner out of the departure gate when we stepped onto a bus leaving for Piraeus. We were bang on target for the early afternoon hydrofoil to Porto Kheli where our friends Clive and Tricia were waiting for us aboard their Beneteau 331, *Moineau*, sundowners on ice. Easy-peasy. 'Sorry sir,' said the nice lady behind the Piraeus ticket office, 'the hydrofoil's fully booked. You'll have to wait until this evening's service.' That'll be the significantly slower FlyingCat, she cautioned. Oh well. We had to expect some hiccups in

Greece during 2015. In the end, it wasn't too bad: the FlyingCat took about three hours, and we made it by bedtime.

Dawn broke the following day, and after a well-earned good night's sleep – we'd been up all night at Gatwick to catch the 05.15 flight – our hosts sensibly suggested a chill-out day to include a public transport expedition to the island of Spetses. This involved a five-minute taxi to the tiny quay at Kosta, from which a high-powered caique rammed us across the narrow Spetses strait for the jaw-dropping price of €25, albeit for the four of us.

Spetses

We ambled for a pleasant hour or so around the pretty and uncrowded town. Cars are prohibited on Spetses, although the ubiquitous Greek motorbike with its



Derrick Bay to the west of Órmos Skindos on Dhokos – there's good anchoring, with care

shrill lawnmower engine is never far away. The highlight of the day, though, was our first Greek waterfront lunch of the holiday; shared plates of calamari, gavros (whitebait), Greek salad and chips, all washed down with a half-litre of chilled white wine. Perfect.

Although we weren't equipped to benefit from it, Spetses has the advantage of a couple of clean bathing beaches right at its heart. It also has a vibrant local wooden boatbuilding industry. Heikell's *Greek Waters Pilot* reminds us that Tim Severin had his bronze-age replica galley built here for his re-enactments of the mythical voyages of Jason and Odysseus.

Our return journey was by a more normal old-fashioned caique – the putt-putt sort. It took about 10 minutes longer than our earlier manic trip but we paid no more than €5 all in. Lesson learned.

Porto Kheli

Day 2 arrived, and we departed Porto Kheli. While cruising this area a few years previously in our own boat Janie and I

by-passed Porto Kheli, discouraged by the pilot book's reference to it being a watersports mecca, notably of the more frenetic sort. However, while this description is accurate and, yes, there was a fair amount of motorboat activity, we were agreeably surprised by the place. Perhaps more to the point, the lagoon makes a popular and safe haven when foul weather threatens. Meanwhile, the town does indeed provide well for most needs.

On leaving the lagoon we spotted a number of attractive anchorages that offered almost as comprehensive shelter but in prettier natural surroundings, all in 3-4m of water and within a short walk or dinghy ride into town.

Dhokos

Our Day 2 destination was the virtually uninhabited Argolic island of Dhokos. We arrived just in time for a late lunch and anchored for the night off the little white chapel on the east side of the main bay, Órmos Skindos. As dusk fell most boats scuttled off, but we remained to enjoy an

excellent dinner and a tranquil night.

I should at this stage introduce our hosts. Clive and Tricia are old friends; Clive and I have known each other through work for 30 years. Now retired, he's currently vice-commodore of the Royal Lympington Yacht Club, and I can vouch that no sooner had *Moineau's* anchor hit the seabed, the anchor ball was aloft. Likes to do things properly, does Clive, and quite right too.

Dhokos makes for a peaceful anchorage in settled weather, but ashore it's very rocky – with slippery rocks – and not good underfoot with light shoes. The nearby waterfront chapel was well worth a visit, though. It's extraordinary that in middle-of-nowhere places such as this we so often come across little unlocked Orthodox sanctuaries, exquisite icons and lit lanterns within.





Peaceful Mandraki Bay, the antidote to Ídhra main town harbour

Ídhra

Anchor weighed, we checked out Derrick Bay before leaving Dhokos, this being the small cove on the western shore of Órmos Skindos. Worrying is the pilot book note about an ominous chain along its bottom, preying malevolently on the unwary. In fact, it's easy to spot. Enter the bay reasonably close to the south shore: not far in, you'll see it. There's ample space to anchor beyond.

However, our Day 3 destination was Ídhra. Independently of each other we concluded that spending the night in Ídhra's harbour was not for us. Its huge popularity and legendary three-row-deep raft-ups – and that's on a good day – led to much sucking of teeth. There's only so much sozzled foot traffic and guardrail twanging that you can take when you're nodding off, and we've all heard or read of harrowing stories of chaos and damage caused by stiff northerly winds when they blow into the harbour, usually at night.

We therefore motored past the harbour towards Mandraki Bay, a much quieter spot just under a mile eastwards.

Here we anchored comfortably in time for a swim and another of Tricia's excellent alfresco lunches.

During the afternoon we took the water

Ídhra town harbour – charming but teeming with yachts, many en flotilla



taxi into Ídhra town. Architecturally, it's certainly an interesting town to walk around, a place made famous in the late 1960s by the alternative art set – Leonard Cohen being one of the most enduring. I understand he still keeps a home there. A significant body of work on his early albums – *Songs From A Room*, for example – and novels (*Beautiful Losers*) was penned here.

Fame has somewhat taken its toll on Ídhra – it's a clip joint, albeit a classy one. We did a spot of provisioning, though – and indeed, the grocery stores were pretty typical of any of the little family-run affairs you find all over Greece – but as evening approached we made our way back on foot to the cool and peace of Mandraki Bay (45 minutes) for an evening dip and dinner at the attractive taverna tucked into the corner of the bay.



Neorion Bay, Poros island. Petros's Taverna is tucked into the corner to the right

Poros

After another still and quiet night, Day 4 had us departing the Argolic Gulf and entering the Saronic, now on course for Poros, an island almost within spitting distance of the Peloponnesian mainland coast. The main town, also called Poros, is an extensive warren of alleyways, cheerful whitewashed houses with painted Venetian shutters, and terracotta pantile roofs. Boatfolk aside, Poros is predominantly a Greek holiday destination, which gives it a particular charm.

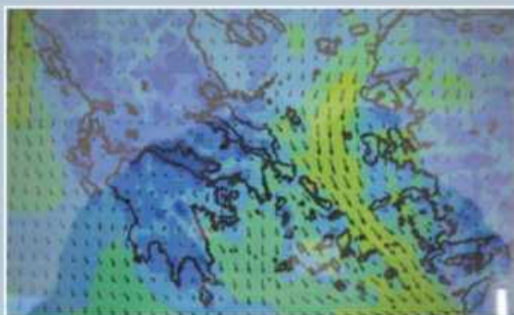
Moineau went stern-to on the west-facing quay opposite the Poseidon Taverna, a venue I confidently recommend. For €35 (£25), a generous mixed seafood platter for two was served up with a litre of wine included. It doesn't stop there either. On Monday nights, when we happened to be there, there's a rather jolly display of Greek dancing which inevitably leads to some equally jolly – and perhaps slightly embarrassing – audience participation.

Not so well frequented are the few pleasant restaurants around the old town square 100ft or so above the harbour. We checked out and enjoyed the 'Butcher's Taverna' (chargrilled meats from the adjacent butcher's shop), and also the pretty Garden Terrace Restaurant.

Most yachties anchor in nearby Navy Bay, but we moved a mile westward to use

Weather

Although the eastern Greek coast is known for the strong northerly meltemi that blows from mid-June to mid-September, the Saronic and Argolic gulfs were consistently well sheltered from it. Whereas the meltemi can be seen blasting the central and eastern Aegean we enjoyed light breezes, flat calms and still nights.





There are plenty of shops, bars and restaurants.

Our landfall on Day 6, though, was at Órmos Klima, a bay on the south coast. It was unremarkable but served well as a lunch stop, by which time the wind picked up for a cracking afternoon sail up to Aigina town. *Moineau* tied up just to starboard on entering the harbour, right outside the handy, no-nonsense but very pleasant Harbour Mole Taverna. Harbour due here was €5 plus an optional €9 for water and electricity.

Aigina's main claim to fame is the extremely well-preserved Temple of Aphaia in the north-east of the island, and this we visited by hire car on Day 7 (see 'Hire car connections').

Here I'll also mention Perdika, a harbour located in the south-west of the island that we visited by car. A natural harbour, Perdika also has a long-established feel. There's a parade of mature and comfortable-looking bars and tavernas with elevated terraces overlooking the harbour. There's also a decent provisioning shop. Heikell advises that it's best not to arrive too late in the day if disappointment is to be avoided. I sense those tavernas won't disappoint either...

Angistri

Day 8 arrived with a gentle breeze from the north that delivered a pleasant beam reach to Angistri. Much of the passage was through about 7m of water as we scribed an arc around the Metopi reef. The seabed colours and contrast were amazing, but it was nothing compared to what followed later that day.

We anchored just outside Angistri harbour for lunch. It's a small town, pleasant enough, but a bit 'formula Med', very unlike Aigina. With lunch over and anchor weighed we set a course for the coves in the channel between south Angistri and Dhoroussa island. Wow! I don't think any of us can remember seeing such beautiful clear blue water. With pine-clad hills running down to the water's edge it was stunning, and irresistible for swimming. A neighbouring bay had a tempting taverna, but we were up for a spot of self-catering that night and I did an onboard barbecue. It was an ideal setting – ouzo aperitif, for me at least, souvlaki, salad, Metaxa digestive, clear night skies and still water. Heaven.

the prettier and more peaceful Neorion and Russian bays.

Neorion Bay is a 35-40 minute walk into the centre of town, Russian Bay about 15 minutes longer.

The smaller Russian Bay is a delightful anchorage. There's a little beach bar with tables and sunbeds, daytime only.

Meanwhile, the larger Neorion Bay has three tavernas. Petros's (Peter's) Taverna, tucked up in the western corner, was excellent value for proper Greek food and, for those who fancy a break from the boat, he also has pleasant shady rooms (dormatia) with en-suite, kitchenette and balcony for €30 a day. Janie and I stayed in one for three nights after we left *Moineau*.

Bikes can also be hired on Poros – ours cost €6 per day. When hiring bikes, ensure that the front brake doesn't snatch harder

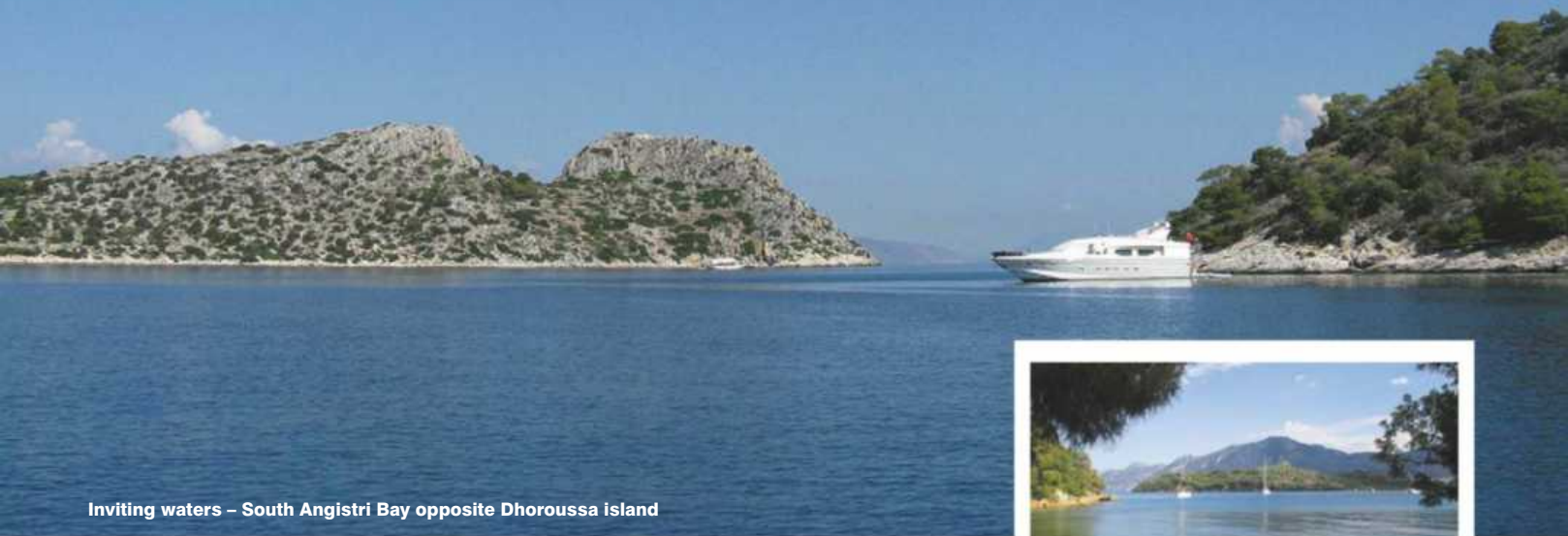
than the rear one. When cycling downhill on one day, I actually went over the handlebars when I applied the brakes. Helmets? Forget it. Greeks don't use them. We did a circuit up to the highest point of the island, Poseidon's sanctuary. An uphill slog, interspersed with walking, most of the road was through pine forest, and it was worth it – not least for the views across the Saronic Gulf. On Poros Quay we were charged €6 plus an optional €9 more for water and electricity.

Aigina

Aigina is an 'off the main tourist drag' destination. Careworn, it has clearly known better days, but then this is part of its attraction. The town is no beach destination, but it's a fine, gutsy place in which to moor up for a couple of nights.



Aigina town, on the island of the same name



Inviting waters – South Angistri Bay opposite Dhorooussa island

Palaia Epidavros

The following day, Day 9, we set off quite late and motored to Palaia (Old) Epidavros. This is not to be confused with ancient Epidavros (see 'Hire car connections'), although ancient Epidavros can be visited from here by taxi (30 minutes each way). This is a comprehensive small town that attracts many Greek holidaymakers. The sea state was notably swelly along the harbour walls, even when conditions were calm. We anchored *Moineau* in the north-west corner of the bay in complete calm, just outside the marked bathing area. Here, it remained consistently quieter. OK, there was a 10-minute walk into town, but that's a small price for a still night.

With any northerly blowing into the bay, the harbour wall is punishing: we witnessed this about a week later from our hotel room balcony. I empathised with the poor souls aboard as their yachts pitched and bucked pretty much all night long.

Irrespective of inland ancient Epidavros, Palaia Epidavros has archaeology of its own – some of which is underwater. Halfway along the south side of the bay, signs directed us to an amphitheatre and other excavations: but more fun, perhaps, is the so-called 'Sunken City' that we explored during the morning of Day 10. This is about halfway along the next bay

to the south. It's off the little beach with about six sun umbrellas, its exact location likely to be more clearly identified by an anchored fishing boat with a party of tourists with mask and snorkels. It's fair to say one shouldn't expect too much here, but in about 1m of water there are remains of amphora, part of an ancient road and many walls standing proud of the bottom by about 0.5m.

Vathi (Methana)

Day 10 continued with a passage eastward to Vathi on the Methana Peninsula, this being a landmark peninsular that dominates the Saronic Gulf. There's a small harbour with room for up to about 10 yachts at a push, and it shares this with a small local fishing fleet. There are no shops here anymore, not even for bread, but there are a few pleasant-looking waterfront restaurants.

Clive and Tricia set off on foot to find the volcanic caldera that our mentor, Rod Heikell, informed us was 'a short distance' away. Well, let me put it this way – I think they rather wished they hadn't.

Fortunately, I had an cast-iron excuse not to go – I was on cooking duty that evening and had pressing gastro preparation to attend to – but when our skipper and lady wife returned well over two hours later it



Palaia Epidavros Bay – the sheltered anchorage off the swimming zone

transpired that they still hadn't reached the caldera, and that was even after hitching a lift from a local for a fair distance.

He was on his way home, he told them. When he reached his house he pointed with a prophetic finger up the steep hill and told them that it would take at least another 45 minutes to get there on foot. However, by now it was well past yardarm hour, and cold beers and chilled white wine beckoned...

Day 11 arrived, and it was time for us to return to Poros where Janie and I embarked on the second half of our three-week holiday. We were lucky enough to link up with *Moineau* a couple more times for day visits, but what followed was essentially the land-based travel part of our holiday.

Hire car connections

Car hire varied between €35-45 per day, depending on car quality. This usually meant that it was more cost-effective than taxis, particularly as a driver might have had to be paid to wait around while we were on site. Perdika aside, here are three opportunities that this cruise offers.

For our hire car we went to Galatas, a town opposite Poros on the mainland. There are two hire companies – Pop's Cars and Top's Cars – and they're within about 100 yards of each other. We based ourselves for two nights at the waterfront Hotel Maik in Palaia Epidavros, which cost €40 a night (including en-suite facilities, air con, etc). The restaurant served generous portions of good, authentic Greek cooking – it would have to, with a largely Greek clientele. From here we visited Epidavros and Mycenae.

Epidavros

This 3rd-4th century BC site contains the best-preserved ancient amphitheatre in the world. With exceptionally good acoustics, it is also recognised to be one of the best-designed amphitheatres. In ancient times it wasn't the theatre that was the main feature of the site but its huge complex

Greece in crisis, 2015

We felt so sad for ordinary folk who continue to open their shops, workshops and restaurants (often with no more than half a dozen punters) from 9am to 10pm, so unlike those in the post-Olympics bloated civil service who retire at 57 on fat pensions.

Not once was resentment or blame expressed towards us, and this despite them being the folk who must now pick up the tab for the combined ineptitude of their political class and a banking system that during the early noughties was, as we now know, at its most stupid.

Personally, I suspect that had Greece entered the Euro 10 years later the situation would have been different. Banking inadequacies would have been exposed, their conduct curtailed, and we – the public – would have been less naïve and trusting. Staffed by professionals more cerebral than the late '90s young spivs in suits, the banking community might, we hope, have matured sufficiently to grasp the cultural difference between a country with a 400-year Ottoman legacy and its post-industrial northern European counterpart.





Richard and Janie Hare at the Temple of Aphaea, Aegina

devoted to healing and well-being. Known as the sanctuary of Askleplion, the god of medicine, it's easy to understand why its location was selected: high in the Argolic hills, it has a temperate climate and the air is fragrant from the surrounding pine forest. It has a peaceful feel to it too. The athletics stadium matches the one at Olympia, and there is a small museum.

Mycenae

This is the most powerful of the Mycenaean city states, the Mycenaeans being Homer's Achaeans of The Iliad and The Odyssey. Its most famous king was Agamemnon, he of the gold mask on display in the National

Archaeological Museum, Athens, although a faithful replica is on display in the Mycenae Museum. If Epidavros oozes peace and calm, reconciliation, health and healing, Mycenae shouts of military might.

It's tempting to imagine that these independent warrior states were too busy knocking the living daylights out of each other to have much spare time for girlie things like art and culture, but the Mycenaean (Bronze Age) section of Athens' National Archaeological Museum (not the Parthenon museum) turned my simplistic misconception on its head, big-time. Many of the exhibits look as though they were crafted yesterday, not



A Unesco-protected site, the iconic amphitheatre at Epidavros

3,000-3,500 years ago.

Unlike Epidavros, to the untutored eye there's not a lot to see at Mycenae beyond the Lion Gate and the monolithic defensive walls that surround it. We found it hard to make sense of what remains of the palace atop the hill. Again, the Athens museum – which far exceeded our

expectations – made it all crystal-clear.

Temple of Aphaea

If you're not familiar with the mythological name Aphaea, you're not alone. She's a minor goddess whose Minoan origins precede her temple by about 1,000 years. That said, to her credit she has one of the best-preserved temples in the ancient world. With bus connections and timetable distinctly unappealing, we hired a car in Aigina town for €30 and used it for a broader tour of the island.

Whereas the temple is remarkable, the museum was a tad disappointing. Adjacent was a very pleasant café, attractively laid out amid breezy pines with a pleasant view down to the sea. During the afternoon, we used the car to visit Perdika. A day's car hire is more than ample to explore Aigina.



PBO Products and services



£4.99

PBO PROJECT BOAT HANDBOOK
■ This 128-page restoration guide follows Hantu Biru's journey from a Dorset fish farm to cross-Channel cruising. All for only **£4.99** with free UK postage and packaging.
Tel: 01202 440830



£1.99

PBO SKIPPER'S HANDBOOK
■ Your quick-reference guide, featuring 64 pages of expert advice on Colregs, cruising, safety, sail trim, maintenance and equipment, all for only **£1.99**
Tel: 01202 440830



£1.75



£5.95



£6.99 EACH

PBO CARTOON MUGS
Celebrating eight years of Claudia Myatt cartooning in PBO, a dozen comedy boating designs – inspired by Dave Selby's columns – are now available on mugs! Priced at **£6.99** each, plus p&p from www.gone-sailing.co.uk/ cartoon-mugs/



£6.50



COMING SOON!

2016 PBO SMALL CRAFT ALMANAC
■ Full of information covering UK waters, Ireland and much of north Europe. Order yours now from chandleries and online bookstores. Just **£17.99** or Tel: 01256 302699



PBO SKETCHBOOKS 3, 4 & 5 IN STOCK
£3.75 each or 3 for £10
Sketchbooks 1-5 are available to download from www.pbo.co.uk



£3.99



£4.99



£4.99

* Discounts for subscribers



PBO PLAYING CARDS
Call 01202 440832 to order our playing cards, with 54 free anchorages. Priced at just **£4.99** + p&p

BUILD YOUR OWN PBO 'PUP'
PRICE: £24.00 Fully dimensioned building plans for the 2.33m (7ft 8in) Pup including drawings for the building jig, hull panels, spars and sails.
KITS ALSO AVAILABLE!
Kit including timber and plywood: **£404**
Kit with all wood ready-cut to size: **£687**

PBO Copy Service

Photocopies and downloadable PDFs of articles, guides and reports from PBO · Yachting Monthly · Yachting World · Motorboat and Yachting · Motorboats Monthly

Telephone 01202 440832

LINES OPEN: 9.30am-3.30pm Monday to Thursday

www.pbo.co.uk (click on Find PBO articles)
email: copyreport@timeinc.com



Fitting new rubber port light seals

**STEP
BY
STEP**



David Parker describes the process involved in replacing the old rubber seals on his boat's port lights

When I bought my boat, I inherited some rather messy-looking port lights where old sealant compound had been used in an attempt to prevent leaks around the seals.

The excess had dried into unsightly dribbles and lumps, but I was cautious about removing this in case I disturbed the bond and introduced old leaks again. However, the decision was made for me after one particularly choppy passage when both port and starboard port lights got a right dousing, and over time both let in quite a bit of water. It was time for the old rubber seals to be replaced, and here's how I did it.



1 At the top of the frame, locate which side of the pivot pin has a serrated end: this is the side which should come out first.



2 Use a small drift to tap out the pin. In this case, I used a cut-down nail which fitted the inside diameter of the locking hole.



3 Here the pin can be seen almost fully removed, but do not use excess force in case you crack the frame.



4 When the opening part of the port light has been removed, clean the frame rim to provide a smooth surface for the new seal.



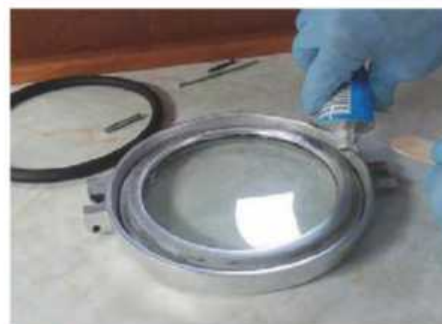
5 Carefully remove the old seal. I used the narrow blade of a craft knife to get underneath it to hook it out.



6 You can see the salt deposits on the old ring and where the rubber has developed hard spots, but try not to damage it until you are sure that the new seal fits.



7 Clean out the old sealant and thoroughly remove any grime from the frame with a suitable solvent. I used isopropanol.



8 Put a bead of adhesive sealant in the recess to hold the new ring in place. Don't use too much, otherwise when you screw the port light tight it will all squeeze out again.



9 Carefully fit the new seal so that it sits evenly in the rim and bed it down into position, holding it with gentle pressure for a couple of minutes.



10 Remove any excess adhesive with a clean rag and solvent; with this particular sealant, Goop, I used white spirit.



11 Put some Vaseline around the internal frame edge to prevent any excess sealant bonding to it when you screw the port light tightly shut.



12 Refit the opening part when the sealant has partially cured. With Goop, this takes between 2 and 10 minutes.



13 With the port light open, lightly tap the pivot pin back in place until the end of the pin is flush with the frame.



14 The new seal is now fitted. However, the material takes 24 hours to cure, so only lightly clamp shut the seals for this period.

TIP

Pivot pins may vary slightly for each port light frame, so keep them with the same sealing ring for refitting. If they are damaged or worn, they should be replaced.

A versatile marine sealant



Goop – or to give it its full-on American name, ‘Amazing Goop’ – is a marine adhesive which quite a few boat owners haven’t heard of, it would seem. Perhaps this isn’t all that surprising because not all chandlers stock it, although it has been around quite a long time. It is a very versatile, flexible adhesive which dries clear and can repair and seal a wide variety of materials. As well as using it as a general sealant on board I’ve also used it to make repairs to my diving mask and dry suit. It can also be used on glass, wood, metal, leather, vinyl, rubber and other materials.

What I find particularly handy about it is that it comes both in a cartridge and a tube. Having it in a tube is especially useful because it can be used and reused in small amounts. Often the problem with sealants and caulking compounds which are only available in a cartridge is that once they are opened they dry out too quickly or go hard before the cartridge is finished, even if kept in the fridge. This is both expensive and wasteful. The Goop in the tube, however, seals with a simple screw cap and I’ve had no problems with it curing in the nozzle. A 3.7fl.oz tube costs £6.60 and a 10.2fl.oz cartridge is £8.40; prices include VAT. It is available from www.palmermetals.co.uk, tel: 0845 644 9343.

Practical Boat Owner®

instantly on your iPad or iPhone

pbo.co.uk/digital

Be sure
to **rate**
& **review**



QUICK TO DOWNLOAD

EASY TO USE

AVAILABLE WORLDWIDE



Also available on

NOOK® HD+

 Google play

kindle fire

 zinio™



Living the high life?

Being liveaboards on a 16.8m (55ft) kauri Warwick in New Zealand isn't necessarily as idyllic as some people might fancifully imagine. Kathryn Hunt describes the trials, traumas and triumphs of living aboard in boatyards

Our friends think we're living the high life. We live aboard a beautiful kauri Warwick, a 55ft cruising yacht, so in one way they're right. But not currently; not in the way that they imagine. High, certainly, because we're 13 rungs up a ladder, about 15ft in the air, propped up on a cradle in a boatyard.

The annual haul-out is always a difficult time for cruisers. In my experience, most boatyards make an effort to welcome us by providing basic kitchen facilities and showers. Some even provide laundry facilities and others, like my current home – Nelson Hardstand in South



Kathryn rolling antifouling paint round the keel

Island, New Zealand – even provide nearby picnic tables to let you enjoy a relaxing drink at the end of a difficult day's toil. When we had our kids on board, boatyards took pity on us and provided us with substantial stairways, making us look like the barricade from the set of *Les Misérables*. Nowadays we have to haul everything, from cans of antifouling paint to the grocery shopping, up and down a wobbly ladder. I use big plastic tubs on lines which I let down like a modern-day Rapunzel.

Being on a retirement budget, we try to

do as much work as possible ourselves. Pete, the travel lift operator, cleaned off the hull with a pressure wash straight after the haul-out, and the run-off was collected to keep the sea poison-free. Gone are the days when we could scrub off against the seawall; I remember many a happy day in Dartmouth, antifouling between the tides.

My first job is to prepare the hull for painting. I use a clever, swivel-headed abrasive pad on a long stick which makes the job much easier. The black gunge runs down the stick, not my arm – a great improvement. Meanwhile, my husband Anthony removes what's left of the old anodes. Dressed like vagrants in old clothes saved for the purpose (we are breaking rules here by not wearing white, hooded, disposable overalls), we roller on the new antifouling paint. We reverted to our usual trusted brand after a brief flirtation one season with a cheaper NZ-made substitute, which resulted in a hull like the Hanging Gardens of Babylon.

I roller round the keel, because I'm short, then I brush carefully



ABOUT THE AUTHOR

Kathryn Hunt and her husband Anthony own a Warwick 55 and are based in New Zealand, cruising the Pacific Islands during the southern winter. Kathryn contributes to *Cruising Helmsman* and *Blue Water Sailing* and has been published in several magazines and newspapers in New Zealand.



The result of using cheap antifouling, after just one year

round the fittings: the radio grounding paint, propeller shaft and bow thruster tunnels. My tall husband rollers on the waterline: if it looks wobbly, it's his fault because he also applied the masking tape.

We try to keep out of the sun, but it somehow manages to follow us, beating down, so that the paint – even using thinners – becomes a black, acrid gunge. Any exposed skin becomes spattered with black pox. Even though I'm wearing a headscarf, it finds its way into my hair.

The moment we open a tin, passers-by seem attracted to us, and there's usually a good selection of folk who want to watch and chat. We try to work at weekends, when boatyard professionals are away, unable to watch our amateurish efforts. Even so, this year the local paint manufacturer's agent arrived to see how it was going. I almost offered him a roller.

With the worst job out of the way, we have time to concentrate on those other tasks, such as replacing the anodes. Although we do this annually, Anthony is always outraged at the cost of these essential lumps of metal. This year, we had an extra job to do as our folding Maxprop propeller had developed a wobble. Our boatbuilder friend Alister removed it and another friend, Paul, drove us to a courier. Even simple jobs without a car can be difficult; we're lucky



ABOVE Anthony examines the anode which is due to be replaced

to have such good friends. Fortunately for us, a British propeller specialist, Bob of Saturn Marine, now lives in nearby Picton. He was such a gent that after overhauling the propeller he returned it personally and fitted it, in time for us to have it painted with Propspeed before relaunch. We're reassured that it will be good for years to come.

Boatyard awards

Last time we were on the hard, in Opuia, Northland, NZ, we took the opportunity to have our chain and anchors re-galvanised. It worked out at 50 per cent of the cost of new chain, so it was worth the frantic loading up of a hired truck and driving like dervishes to catch the once-a-month deadline. The threat of another month of high living in the boatyard spurred us on our way, and we made it with only moments to spare.

A fortnight later, two sparkly anchors and chain were delivered back to us, looking almost too good to use. We spent a fun afternoon measuring it and marking it with coloured cable ties before hauling it back up into the chain locker. Heaving the second anchor up into its locker, even with our Lofrans windlass, was exhausting. We treated ourselves to a budget meal at the yacht club afterwards to celebrate a job well done.

Boatyards are inevitably dirty, noisy places, but once the workers have left they take on a different character. We sit



International cruisers living the high life at Norsands Boatyard, Whangarei, NZ

relaxing, looking out at other liveaboards also enjoying their high life, sharing sundowners and admiring the views.

During our travels, we've certainly experienced a variety. For my vote, the prettiest boatyard would be Prickly Bay in Granada in the Caribbean. Surrounded by countryside, our young daughters were able to play on the lovely beach while we slogged away. My award for 'most famous' would go to the Elephant Boatyard on the South Coast of Britain, because it featured in the popular television soap opera *Howards' Way*. In spite of this, it wasn't in the least glamorous, and I quickly stopped expecting actors to appear. However, there was a really good traditional pub within easy walking distance to help drown the day's aches and pains.

In New Zealand, my vote for best boatyard would go to Auckland's Gulf Harbour with its clean, painted concrete hardstand. Its large travel hoist saves us the tedious task of removing our backstay and SSB aerial, as we are forced to with smaller hoists. The most cruiser-friendly boatyard would have to be Norsands in Whangarei, which even advertises its beautiful garden – tended by Carol, a liveaboard – as a resource which grows herbs for cruising chefs. My vote for the worst boatyard, which will be nameless, goes to the one which hauled out a huge, rusting steel barge next to our boat and blasted it, spraying

BELOW Norsands in Whangarei grows herbs for cruising chefs





Cobalt, the Hunts' 55ft kauri Warwick, at anchor



ABOVE 'The Claw' comes to fetch us for relaunch

ABOVE LEFT The only way is up (or down)... Anthony living the high life, January 2015

orange specks all over our lovingly-painted white topsides. It pays to know who your neighbours will be.

Neighbours also provide you with something interesting to watch. At the time of writing, the man next door is repairing his keel after hitting the boulder bank trying to get ahead on race night. He clearly doesn't want to talk about it. Opposite is a fishing boat so rusty it will surely never go to sea again. Its owners seem to gently hack at the rust until opening time, when they disappear.

There's an eerie silence as I peg out our laundry on the lifelines at dusk, away

from dust and public view. I bring it in next morning at 7.30, as the boatyard workers arrive and the day's work begins: banging, drilling and grinding. We, up our ladder, eat breakfast then lower buckets of dirty dishwashing water to pour down the drains. The travel hoist rumbles by, bleeping its warning like a giant version of the arcade game 'The Claw', collecting the neighbour's repaired boat to be relaunched, ready for the next race.

Conscious that our turn is drawing nearer, I make use of luxurious tap water to scrub the shade cloth awning. I utilise

the shore power to machine-sew new canvas hatch covers. Meanwhile, Anthony shows Dave Pinker, the local CAT 1 inspector, the hull for the out-of-water survey. Owning a New Zealand-registered vessel, we are obliged to have this inspection every time we plan to sail offshore. It's a burden, but it does concentrate the mind somewhat.

After a week of wearisome work, we will give the whole boat a thorough lathering with that well-used hose before 'The Claw' bleeps its way over to us. Although we'll look grey and exhausted, the boat will sparkle as Pete the travel hoist operator lowers us carefully down to sea level, back to the type of 'high life' our friends imagine.

The jury's out!



Tony Nield improvised a jury rudder from a headboard after the aluminium rudder on his Seal 22 failed in the Menai Strait

The original rudder of the Seal 22 is a ruggedly-constructed unit comprising a heavy stock laminated from marine ply which hangs on the transom, with a pivoting blade of 8mm boiler plate. As far as I know, these original rudders do not fail but are very heavy to ship and unship, especially for trailer-sailing. For this reason, many owners have been tempted – as I was – to build a lighter one. I decided to substitute 10mm aluminium for 8mm steel for the plate: given that the density of aluminium is only about one-third that of steel, there would still be a substantial weight saving. A friend who is a consulting engineer reassured me that this should be sound: the increase in thickness should compensate for the lower strength and stiffness of the aluminium. For this experiment I managed to scrounge the aluminium (of uncertain ancestry) from a friendly scrap dealer.

Having cut out the blade with a jigsaw – a long, slow job – and having profiled the leading and trailing edges with a rasp (more blisters), I was still not convinced of the strength of the finished part, so I devised a test unknown to British Standards. I rested the blade horizontally on the ground on a house brick at each end and then jumped up and down on it as hard as possible in its centre. Nothing broke or bent, and there was no noticeable flexing either. Now satisfied with it, I painted and fitted it.

BANG!

For three or four years all went well. It was probably just my imagination, but I convinced myself the boat went faster with less weight on the transom, less dead wood, less drag and all that. However, one



Tony Nield's Seal 22, dried out at Beaumaris in Anglesey, Wales

day I was sailing, with an enthusiastic but not very experienced friend, from Menai Bridge up the strait past Puffin Island towards Moelfre. The wind was building all the time, and we had just decided that the upwind bash to the pub at Moelfre was not worth it. Rowing ashore in my tiny inflatable would have been risky in the conditions, and we would have been late back for a family barbecue in the evening.

By then the wind was probably about Force 5 or 6, and I had already been forced to drop the main to carry out a running repair with spinnaker tape where the top horizontal seam had started to split.

When we turned back somewhere off Red Wharf Bay we had a quartering sea which was lifting the stern and swinging us off course. I really had to heave on the tiller:

unusual for the Seal, which is normally light on the helm. After I did this for a while, a bigger wave lifted and pushed the stern to starboard, so I heaved again on the helm, and BANG! In effect, the rudder was stalled, and the blade was being shoved sideways through the water until it broke off along the line of maximum stress where the blade exited the clamping effect of the stock, which also coincided with the waterline.

Steering on the sails

First I had the difficult job of securing the broken blade which was crashing about the stern, suspended by the wire rope strop of the downhaul. Hanging precariously over the transom, I managed to grab the blade and lash it to the old outboard bracket, retained for its convenience as a boarding step. I could not unscrew the shackle which was out of reach underwater, and the wire strop passed through a fixed fitting and had a hard eye at both ends, preventing it from being released.

Next we tried steering on the sails like it says in the books. I had done this before, in perfect conditions on the River Fal in a dinghy after its plywood rudder had broken off. With a gentle breeze ahead of the beam that wasn't difficult, but this was different: a lumpy quartering sea and a following wind. We were all over the place. I took off all sail, started up the outboard

Steel to alloy weight saving – the theory

Assume steel rudder blade weight	100 units
Specific gravity of steel, approx	7.8
Specific gravity of aluminium, approx	2.7
Same-sized aluminium blade weight	$2.7/7.8 \times 100 = 34.6$ units
Correction for increased thickness from 8mm to 10mm	$10/8 \times 34.6 = 43.3$ units

ie, the substitute alloy blade should weigh less than half the steel one, representing a weight saving of more than 50%.

In my case, the 56lb of steel was replaced by 24lb of alloy, saving 32lb off the transom – and saving my back when shipping and unshipping the rudder. It all seemed very attractive...



The broken rudder



Tony fashioned a jury rudder from one of the bunk headboards he had previously made



'The sheared edge resembled a broken digestive biscuit, with crystals suggesting metal fatigue'

in the well, unlocked the steering clamp and tried steering with the engine – but still to no avail. At this point I was really worried and also feeling responsible for my friend, who was quite unconcerned and showing a touching (but unjustified) confidence in me. Finally I resorted to the VHF, and the good folks from the RNLI saved the day.

The big lifeboat arrived from Moelfre in no time to tow us back to the strait. We have never gone so fast. It was more like waterskiing, with a huge bow wave flying over the cockpit. They asked if we minded being dropped off at Beaumaris instead of Menai Bridge so they could be back on station sooner: we were most grateful and happy with this, so they helped us to pick up a buoy there before roaring off, as we had elected to stay on board to see what else could be done.

Once we were securely on the buoy, I felt rather ashamed at having called out the lifeboat. We hadn't been in imminent danger with the wind offshore, and we could perhaps have anchored, tried to ride out the weather and attempted to rig a jury rudder. But I was soon very glad I had called for help: after a cup of tea, I went on deck with my anemometer to find the wind was now Force 7, gusting 8, and it was very uncomfortable even on the mooring. There was no way we could have limped home in those conditions.

After an unpleasant night during which I

had plenty of time to think, I came up with plan C (or was it D? I had lost count). We still had no rudder, and had to get back to our drying mooring at Menai Bridge. Many years before I had made headboards which slotted into the bunks to prevent collisions between the heads and feet of sleepers lying in line on each side of the cabin. I had decided that they should have a dual function, and drilled a number of holes in them to allow them to be lashed to a pole to make a sweep or jury rudder...

By morning the wind had died down and I was able to hang overboard, release the problem shackle and recover the broken blade. Now it could be examined, the sheared edge resembled a broken digestive biscuit, with a mass of crystals suggesting metal fatigue. I have since been told that aluminium, unlike steel, does not have a lower stress level below which fatigue does

not occur. In other words, even tiny stress reversals in sufficient number can weaken it. It makes me wonder if aluminium or its alloys should ever be used in this application? We removed the other broken piece from the rudder stock and wedged in and bolted one of the headboards to make a small rudder compared with the real one. We shipped this and lashed the other headboard to the spinnaker pole to make a steering sweep in case the tiny rudder proved ineffective.

Back to the drawing board

During the night, I had come to the conclusion that steering with the outboard the previous day may have failed because of the keel: small motorboats without a deep keel steer quite well with relatively small rudders or just a swivelling outboard. To test this theory we wound up the Seal's drop keel before setting off under power alone – with steering outboard, tiny rudder and emergency sweep. We dropped the mooring and opened up the throttle. I thought the small rudder ought to work better at higher water speed, and it seemed to do so. We never needed the sweep.

With the keel up she steered quite well, although she needed larger angles of incidence to turn. We had an uneventful trip back to the bridge and a drying mooring, then I drove home to triple-sew a mainsail and collect half a hundredweight of boilerplate from the back of the garage. Much later, I went back to the drawing board for another solution.



The other headboard was lashed to the spinnaker pole to make a steering sweep



Our pick of the product launches at the Marine Equipment Trade Show (METS) in Amsterdam

Meaco DD8L Zambezi desiccant dehumidifier

Past PBO tests have shown desiccant dehumidifiers to be a winning technology on board boats. Claimed to have been designed with boat owners in mind, the Zambezi has a digital display to show, amongst other things, the current humidity and the humidistat's set-point. There are three fan speed options and four electronic up/down swing modes to help direct the air where it's needed. The sterilising ioniser uses licensed technology from Samsung which has been clinically proven to kill viruses and germs. The daily run timer allows users to set fixed periods for operation, while the logic control monitors conditions every 30 minutes and chooses to dry or sleep accordingly. The area below the condensing tubes can be accessed and cleaned out to prevent blockages, which Meaco say are a common reason for other units being returned. On sale from January, priced at £249.99. Watch this space for a PBO review. www.meaco.com



EasyTec winter boat covers

Swedish firm Rapid Marin showed off their range of low-cost winter boat covers at METS. A kit comprises a shaped heavy-duty tarpaulin, into which is inserted a special composite pipe ridge-pole. Designed to shed snow, ice and water, this is supported at the bow with an included 'S-hook', and supported midway along its length with extra support bars. Hefty eyelets are included so it can be weighted or tied down. The whole thing comes in a 2m-long bag with the tools needed, and it is claimed to be around 40% cheaper than a traditional boat cover. It has low wind resistance, can be assembled quickly, and packs down small enough to fit in a car.

Prices start from around £215 for a 5-6m boat.

www.rapidmarin.se



Aurora pyrotechnic range

Crewsaver, in partnership with Pains Wessex, has launched a new range of pyrotechnics aimed at the marine leisure market.

This new Aurora range includes the Sky Lite 2 Star Aerial Distress Flare; Day & Night Distress Signal; Red Parachute Rocket; White Handflare; Red Handflare; Orange Handsmoke; and Lifesmoke, available in a variety of different flare packages.

The new Crewsaver Aurora distress signals have been added to its existing range of lifejackets, liferafts and safety equipment, which already includes McMurdo emergency beacons. Prices start at £14.95.

www.crewsaver.com



Henri Lloyd Flex 3D Jacket

Henri Lloyd's Flex 3D Jacket is claimed to herald a 'new era of product technology' with full stretch insulation. Winner of the Clothing and Crew accessories category of the 2015 DAME Design Awards, announced at METS, the jacket features thermal, non-flattening 'spiral' wadding which is proven to be 33% more effective than its predecessor. The other main feature is the jacket's stretch properties: the Flex 3D outer fabric and internal wadding offers a four-way stretch. The space between your shoulder blades stretches by 16%; Flex 3D provides 15% stretch in yarn, fabric and thread, which enables freedom of movement and increased comfort. Features include a non-corroding front zip; zipped, welded side



pockets; a zip-fastening internal pocket, and stretch binding at top collar, cuffs and hem. Available in sizes S to XXXL, costing £140 for the jacket, £99 for the vest (gilet) version. Henri Lloyd's 2016 collection also includes an extensive range of technical jackets, vests, tops and shorts including a revised version of the lightweight, waterproof and windproof Breeze jacket, plus the Freedom range of hi-tech oilskins for cruising sailors, with jackets priced at £249 and high-fits at £190. www.henrilloyd.com

Adidas gets into sailing

Sports clothing giant Adidas has turned its attention to sailing with an extensive range of technical marine clothing, footwear and accessories for the occasional and professional sailor alike. With a breathable all-over mesh upper and rubber outsole, JB01 deck shoes (£90) are designed with a non-marking outsole that is promised to provide exceptional grip for wet and slippery conditions during linear and lateral foot movement. The offshore clothing range, priced from €700, includes super-light but hardwearing jackets, smocks, salopettes and high-bib trousers with a breathable 3-layer Gore-Tex Pro shell.

The inshore range, priced from €200, offers lightweight and comfortable protection with fully seam-sealed, durable and waterproof Gore-Tex shells in long- and short-style jackets. There are also T-shirts (£35), polo shirts, high bib trousers, wetsuits, a drysuit, onshore casual wear with soft-shell jackets, full and half-zip microfleece tops and shorts, plus 150N life-vests, buoyancy aids and sailing accessories. www.adidasailing.com





Bilge Bug

Excel Marine's Bilge Bug is a water detection switch, designed and engineered in the UK to provide 'the safest and most reliable clearance of bilge water available'. Bilge Bug is promised to offer more than seven years of uninterrupted service. With no moving parts, and IP67-rated for watertight protection of the electronics, it

requires minimal maintenance and has been designed to be 'exceptionally frugal' in battery consumption. Solid-state electronics cater for multiple voltages suitable for both 12V and 24V systems. A timed on/off delay further reduces operating power consumption and extends the pump life. There is no need to run a dry test to check the bilge switch is activated, as an LED light (which can be easily seen in the bilge) indicates full working order. Priced at £54. www.bilge-bug.com

International Textile Waterproofer

AkzoNobel's new Textile Waterproofer is designed to protect fabrics against moisture, dirt and mildew. Routine care of canopies or sprayhoods will extend their lifetime and will keep onboard textiles looking like new for longer. Their flexibility can also be retained. The Textile Waterproofer can also be applied to extend the useful life of sailing clothing and other textiles on board. This product is water-based for the lowest environmental impact. Priced at £15.60 per 500ml pack.

www.yachtpaint.com



SuperGroove glue

Fastmount's non-toxic, non-flammable SuperGroove Adhesive is claimed to be a serious rival to epoxy glue. The volatile nature of standard epoxy glues means that they are expensive to be air-freighted, and companies wanting products shipped by sea might wait up to three months to receive a product that only has a six-month shelf life. SuperGroove Adhesive is a two-part glue that doesn't require sea freight and it has a 12-month shelf life: it can be used in confined

spaces as it gives off no discernible odour and, being solvent-free, will not endanger the user. Available in two sizes, 30ml and 400ml. The 30ml twin tube mixer is designed for touch-ups and emergency repairs, while the 400ml twin tube mixer is suitable for large-scale installations. Price tbc. www.fastmount.com



Garmin GPS 73

Garmin have gone back to basics with their new handheld GPS. With a black-and-white display, it's simple, but ideal for round-the-cans racers who won't need the full range of options offered by fully-featured chart plotters. In addition to the usual waypoint info, the GPS 73 also includes start-line information, allowing you to 'ping' both ends, and it will show you time, time to burn and distance to the line. Once you've started, it will display lift and header information. Cruisers will find it useful as a back-up or simple GPS for small boats. It's waterproof and floats – what more do you need? Price £129.99.

www.garmin.com



Spinlock Lume-On

Spinlock won the overall DAME award at METS with this clever product. It's a small flashing LED, sold in pairs, which sticks onto the underside of each lifejacket bladder. Water-activated, it shines the light into the inflated lifejacket which acts as a diffuser, making the wearer much more visible. Spinlock's Chris Hill commented: 'A normal light like the Spinlock Pylon light makes you visible from a distance, but these Lume-On lights make it hard to miss a man overboard when you get closer.' It looks like a great idea – and we hope to test a set this winter. Price £14.95.

www.spinlock.com

New from Barton Marine



T-LOCK HATCHES Barton Marine has launched a new line of T-Lock hatches featuring water-resistant seals and hidden fasteners. Available in Polar White, the hatches have stainless steel hinges and hardware. The single handle hatches have double hinges and the double handle versions have triple hinges. The hatches are available in a variety of sizes. Made of UV and weather-resistant saralon resin, the reinforced lid hinges through 180°, has a non-slip surface and is impervious to harsh chemicals.

BARTON FURLER This new-design furler is promised to make controlling the jib a breeze, thanks to its improved performance. Made of fibreglass-filled nylon giving it strength and rigidity, the furler is available in two sizes to cater for sails up to 6m² or 10m². The furler's design includes a new three-point line-retaining feature to help keep the line on the drum for smooth and snag-free running. There is also a multi-position option for the furling line exit, which provides more flexibility for boaters to set the line at the right exit angle from the drum.



DECK WEARPADS

Barton Marine's new PUR clear wear pads bring the same material used to protect race cars from chips and abrasion to the boating market. The waterproof pads can be cut with scissors to create the shape required.

Made of high-grade polyurethane resin 3M film, the pads are designed to not discolour when exposed to the elements, not crack or chip, and so that their application should not affect the gelcoat or wood. Available in packs of two 98mm x 200mm rectangular patches. Prices tbc. www.bartonmarine.com

Last-minute Christmas gift ideas

Get these great gifts before the shops shut

True Utility FIXR

This new multi-tool from True Utility offers 20 tools in one. It clips to anything, and a rotating tool plate serves to protect and keep all the tools safe when the FIXR is not in use. Features include quick-release clip; bottle opener; nail cleaner; large flat screwdriver; medium flat screwdriver; small flat eyeglass screwdriver; small and medium-sized Phillips screwdriver; 6mm, 8mm, 10mm, 12mm and 14mm spanner/wrench; bicycle spoke wrench; K5 carbon steel cutting blade; wire stripper; measuring ruler; box opener; pry bar and file. L83 x W25 x D9 mm. £14.99. ■ www.trueutility.com

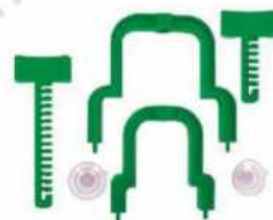


PBO subscription

This Christmas, PBO's subscription deals just got better with the gift of a comedy boating mug for every new subscriber. The ceramic mugs are illustrated by Claudia Myatt and inspired by PBO columnist Dave Selby's articles. The full range of a dozen designs, priced at £6.99 each, can be found at gone-sailing.co.uk/cartoon-mugs, but new subscribers can choose from two of the most popular designs – Boat Handling and Preparing for Heavy Weather – as an extra incentive to get Britain's biggest-selling boating magazine direct to your door. The subscription includes access to PBO's digital edition and free subscriber rewards. See magazinesdirect.com/CWF5 or call 0330 333 4555, quoting code CWF5 (Boat Handling) or CWG5 (Heavy Weather). Lines open seven days a week, 8am-9pm (UK time).

Shower Friend

Here's a device that could prove to be a real pal in marina showers! It's designed to save you repeatedly pushing buttons to keep water running and to keep hands free to wash hair. Shower Friend can be stuck onto the wall next to push-button showers using suction cups, and screwed into place with an 'elongated captive castellated locking pin' to hold the valve down while you're washing. £9.99, plus 99p for the suction cups. ■ www.showerfriend.com



2016 calendars

The Marine Conservation Society (MCS) calendar showcases UK marine wildlife imagery taken under and over the water: 100% of profit goes to the charity. £8.95, www.mcsuk.org/shop

■ Beken of Cowes: five calendars, entitled yachting, classic, beauty of sail, sailing and sailing action. Prices from £15 inc. P&P, www.beken.co.uk/cals.htm

■ ilovesailing: winning images picked from hundreds of entries to an RYA competition. £4, www.rya.org.uk/shop

■ Claudia Myatt year planner: £8.50 inc. P&P, www.claudiamyatt.co.uk/shop

■ Hunter Fleet: Stunning sailing images of traditional Broads yachts, £7 inc. P&P, info@huntersyard.com, 01692 678263



Beautiful books to brighten Boxing Day

■ *In the Wake of Heroes, Sailing's Greatest Stories* compiles Tom Cunliffe's 40 favourite extracts from boating books and covers the entire scope of yachting concerns, from small-boat handling to yacht racing, long-distance cruising and exploring. Published by Bloomsbury: hardback £18.99, eBook £16.99.

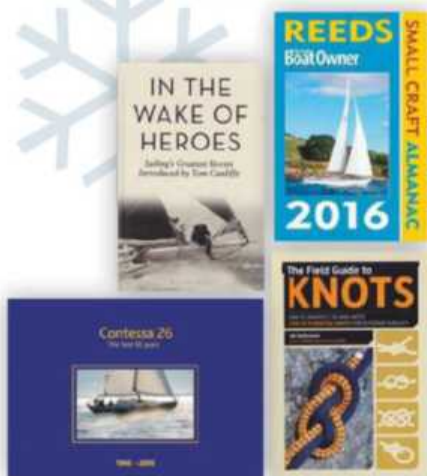
■ *Contessa 26, the first 50 years*. Celebrating the golden anniversary of the Contessa 26, conceived by Jeremy Rogers in

his yard in Lymington and still as actively cruised, raced and loved by its owners now as it was when it first burst onto the sailing scene in 1966. This 95-page book is published by South Atlantic Publishing: £15 for association members, £20 for non-members. www.contessa26.net

■ *The Field Guide to Knots*. How to identify, tie and untie more than 80 essential knots for outdoor pursuits, by Bob Holtzman (author of *Wilderness Survival Skills*),

published by Apple Press, £12.99.

■ *Reeds PBO 2016 Small Craft Almanac*. The Reeds PBO Small Craft Almanac contains many unique features for leisure boaters. Meticulously researched, this popular almanac contains a wealth of information presented in an easy-to-find, quick-reference manner, and covers the UK and Ireland and the west coast of Europe from Denmark to the Gironde. £16.99, available online and from chandleries.



www.JimmyGreen.co.uk

Reliable, Continuous Service since 1981

Don't miss us at the
London Boat Show
8th-17th
January
2016

LIROS Marlow

Save
up to
35%

Promotion ends
31st December
2015

**ROPE
PROMOTION**

Online
in store
on the telephone

THE Jimmy Green FIRST CLASS RIGGING SERVICE

straightforward shopping @ **www.JimmyGreen.co.uk**

Enter the length and diameter of your rope or wire
Select the finish you want on each end, where required
and let our website do the rest

For complex enquiries we can offer a considered, bespoke solution
email sales@jimmygreen.co.uk or telephone 01297 20744

Only ever the BEST QUALITY ROPE, CHAIN and WIRE ~ We don't switch sell



LIROS

STA-LOK



PETERSEN
STAINLESS RIGGING LTD

01297 20744

Sales Hotline and
Website Support



Marlow

If you have any difficulty on the web we're here to help, just give us a ring @

All prices include VAT ~ Carriage is calculated in your basket by weight and destination
Express Delivery Surcharge: 1 Day £10, 2 Day £5, 3 Day £3 ~ Monday - Friday Mainland only
Surcharges apply on Hazardous or Heavy Goods and on delivery to Scottish Highlands and Islands

Jimmy Green Marine
The Meadows, Beer, East Devon EX12 3ES
9am-5pm Monday - Friday, Saturday 9am-2pm
E-Mail: sales@jimmygreen.co.uk ©



Marinestore

The place for really useful chandlery

Visit our brand new website or call
the store for more great offers!

Tel: 01621 854280

www.marinestore.co.uk

Crewsaver Crewfit
165N Sport

£67.99



Portable aero
Fire Extinguisher

£39.99



Musto Dry Carryall
65 Litre

£47.99



Chatham Dockside
G2 Men's Deck Shoe

£44.99



Orca Bay
Storm Boots

£134.99



Speedy Stitcher
Sewing Awl

£11.95



Sikaflex 291i
Marine Adhesive

£8.99



Interstrip Antifoul
Stripper Remover 2.5ltr

£49.99



International Woodskin
Varnish

£17.89



Jabsco Toilet
Compact

£99.99



Dometic Smev StarLight
Cooker

£429.95



McMurdo Fastfind
220 PLB

£179.00



Grotamar 82 Diesel
Additive 1 Litre

£34.95



Humminbird Helix
GPS Plotter 5"

£299.99



McMurdo Smartfind
S20 SRS Personal
AIS

£178.99



Waveline Dehumidifier
with LCD display and
Humidistat

£109.99



Pela 6000 Spherical
Oil Extractor Sump
Pump 6 Litre

£34.99



Henri Lloyd
Coast Suit

£149.99



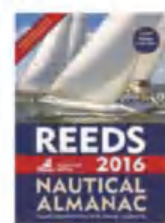
Suzuki 2.5bhp
4 Stroke
Outboard
Engine

£524.99



Reeds Nautical
Almanac
2016

£34.99



WE OFFER FREE SHIPPING TO MAINLAND UK FOR ORDERS OVER £75

Tel: 01621 854 280 Stores at Maldon, Burnham-on-Crouch & West Mersea

Prices are correct at date of press and are subject to alteration without prior notice. Stock subject to availability. E&OE.

Are you ready for
CHRISTMAS?

HOLEBROOK SWEDEN **Cosy Jumpers**
CLASSIC
Windproof sweater
More Gents and Ladies styles online
TESSY LADIES
Windproof woolmix sweater

£94.99 **£89.99**

TWO FOR £60!
7X50 Waterproof Focus Free
ONLY £34.99
JUST £89.99
COMPASS BINOCULARS
MINOX
MD 7X42 MONOCULAR WITH BUILT-IN COMPASS
RRP £119
NOW £94.99



Gift Vouchers *Perfect for Christmas*

WATERPROOF BEANIE HAT
£27.99
£22.99
Gill
DECKHAND GLOVE
£6.99
NOVELTY BEANIES

★★★★★
Excellent 9.2
Trustpilot.co.uk
Our customers love us!

£17.95

REEDS 2016 NAUTICAL ALMANAC
RRP £45
£35
REEDS 2016 EASTERN ALMANAC
RRP £35
£30
REEDS 2016 WESTERN ALMANAC
SALOON BAROMETER
Superb quality, heavy sand-casted brass, 229mm (9")
£119.99
SALOON CLOCK
Superb quality, heavy sand-casted brass, 229mm (9")



VISIT US : GAELFORCEMARINE.CO.UK

GAEL FORCE MARINE, 136 ANDERSON ST, INVERNESS, IV3 8DH

DELIVERY CHARGES: STANDARD UK DELIVERY £6.99 • EXPRESS UK DELIVERY £9.99 • PRICES INCLUDE VAT. CARRIAGE CHARGES ARE UK MAINLAND, UP TO 10 KILOS AND NON-HAZARDOUS PRODUCTS. PRICES VALID UNTIL END OF DECEMBER 2015 OR WHILE CURRENT STOCKS LAST. PRICES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE, ERRORS AND OMISSIONS EXCLUDED. *FREE DELIVERY EXCLUDES FLARES AND ANY OTHER HAZARDOUS OR BULKY ITEMS AND LIFERAFTS. SEE THE WEBSITE FOR TERMS AND CONDITIONS.



Got a question? Email pbo@timeinc.com

Here's just a selection of the latest questions from PBO readers. Email or write to the address on page 5 and our experts will answer your queries

MASTS AND RIGS

Shifting a winch

Q I have recently bought a Telstar 26 Mk1 trimaran as a project boat, and although the necessary work is mainly cosmetic I find that both the sheet winches have seized.

With the absence of any technical information regarding these I want to dismantle them so I can clean and lubricate the working parts.

But I can see no way of getting into them. I've removed the screw from the centre of the drum thinking that would be all that was necessary but the drum won't budge. I'm reluctant to use brute force in case I do

irreparable damage.

I also attempted to remove the circular steel ring from around the handle hole thinking that there may be a circlip underneath. You should be able to tell from the photographs the type of winches they are.

They're probably as old as the boat – around the early 1970s. Could you advise on the best way to dismantle them?

*Phil Gorry
Ramsey, Isle of Man*

MIKE COATES REPLIES: It looks like a Gibb winch and although it's years since I've



It's difficult to obtain spares for old Gibb winches

stripped this type as far I can recall the only way is to dismantle it to remove the centre screw – which you have done.

This should have allowed you to draw the drum off the shaft, but

it's obviously seized.

You could try repeated dowsings with boiling water which may release the corrosion and also expand the drum just enough to allow it to pull off the shaft.

Failing that leaving penetrating oil in the handle recess on the top of the winch may eventually release the drum – otherwise its going to have to be brute force.

Unfortunately spares are no longer available for these winches which were discontinued approx 25-30 years ago – unless you happen to drop into a chandler who has some old stock that he'd be grateful to get rid of!

It may be that now's the time to consider replacing with a more modern set of winches.

BOATBUILDING

Cracking in gelcoat

Q I've recently bought a 1977 Anderson 22, and we're currently going over the yacht in preparation for next season.

At the base of the stanchions there are varying amounts of spiderweb cracking. I'll make up new baseplates in stainless steel to replace the steel ones, but I'd like to know how to seal the cracks before reassembly.

The cracks extend variously from 10mm to 40mm beyond the stanchion bases.

Rob Henchoz, Suffolk

TONY DAVIES REPLIES: This is a very common problem and

while the repair is simple the finishing can be a problem owing to the need to match the gelcoat colour. If the boat is painted then there is no problem – all you need to do is repaint the affected areas.

Using a Dremel-type tool you can carefully grind out the cracks to about 3mm wide and into the lay-up beneath to ensure that the cracks are completely obliterated, then fill with matching gel-coat.

An altogether better solution, however, is to grind out the whole area using a mini grinder and fill and smooth using either the matching gelcoat or epoxy filler if the area is to be painted.

ENGINES

To fill or not to fill

Q My boat has two stainless steel fuel tanks. At about 90 gallons each, their capacity is more than I need: when I can, I sail without the engine.

At the end of the season I top up the tanks and add diesel fuel treatment. In the spring, I change the filters and check the water bowl on the water filter.

I have been doing this for nine years now without any problem. But while all seems fine, the diesel is now getting pretty old.

Is there a way I can prevent condensation without topping up my tanks? Should I empty them?

David Lines, Cumbria

PAT MANLEY REPLIES: Most diesel fuel these days is a blend of normal and bio-diesel. Blended fuel keeps nothing like as well as straight diesel and is hygroscopic: it loves taking up water, making it a good medium for growing bugs.

I believe the best solution is to remove your existing 90-gallon tanks and replace them with a single tank of around 40 gallons.

If you keep your present setup, I would at least have the contents of both tanks polished, then keep one empty with the vent blanked off to prevent condensation.

You can then top up a couple of times a year to keep the fuel fresh.

THE PBO EXPERTS

To ask a question email pbo@timeinc.com and include your address. Pictures are helpful



SEA SAFETY
Will Stephens is Staff Officer Operations (Coastal Safety) at the RNLI



BOAT BUYING
David Harding is a regular contributor to PBO: his photo archive is at www.sailingscenes.co.uk



CRUISING
Stuart Carruthers is the RYA Cruising Manager and has sailed extensively



SAILS
Ian Brown of the International OneSails loft group is an expert on sails



MASTS & RIGS
Mike Coates worked in the spar and rigging business for many years



SURVEY AND CORROSION
Colin Brown runs a marine survey and consultancy company, CB Marine Services



ELECTRICS
Paul Holland is chairman of the BMEA and MD of Energy Solutions (UK)



ENGINES
Pat Manley is a diesel engine course instructor and marine author

YACHT DESIGN

Where to put some ballast?

Q My question concerns extra ballast for my 5.5m (18ft) day boat that I sail in the Torridge Estuary in Devon.

Endeavour was in a poor state when I bought her four years ago. I made a new mast, gaff and boom, had new sails made and am delighted with the way she sails. She has an iron centreplate but I have no idea of its weight.

I have noticed that going to windward she heels significantly in winds of Force 4 and above and I have to reef earlier than many other similar-sized boats out sailing.

By pure chance I met her original owner: she was built in 1980 and he asked if I still had the extra ballast in her – but when I bought her there was no sign of this.

She does float well above her waterline so I'm going to try adding ballast, but the question is where should it go? My view

Andrew Littlejohn's day boat *Endeavour*



is to keep it as close as possible to her midships and along either side of the centre plate case.

However a friend suggested it should be located on either side of the boat as far from the centreline as possible. To me this would negate any beneficial righting moment as they would be working in opposition to each other. What is your view?

Andrew Littlejohn
By email

ANDREW BLYTH REPLIES: The boat does look to be floating higher than you'd expect. You have a choice of how to add ballast, or you may combine both approaches.

Extra ballast added internally is undoubtedly best placed on both sides of the centreboard case, as low as practicable. I'd arrange it so that it is clamped or secured to the casing and cannot move or fall out if the boat should ever be capsized.

If the ballast were to be distributed as widely as possible, as your friend suggests, it would be placed higher up and thus have less effect on the stability. Doing this would increase the roll inertia and lengthen the period of roll, but this is not necessary for a sailing boat.

Another measure you could take is to replace the steel centreboard. Being 35 years old, it's probable the original board has corroded significantly, and is therefore less heavy than it was. If you replace it check carefully what maximum thickness is possible while retaining free movement of the plate. Quarter inch steel weighs 10.2lb per sq ft (6mm is 47.1kg per sq m). This measure has the benefit that when lowered the plate has maximum effect on the stability – although raising it will be harder work.

WOOD

Say cheese!

Q I am planning to make a wooden cap – we call it a 'cheese wheel' for the masthead of the main mast of my Drascombe Dabber. Should it be made with the grain horizontal (ie across the mast axis) or vertical? Symmetry would suggest vertical but then it might be more prone to intake of rain water in the grain and perhaps split.

Which wood/s are best suited? I believe the mast is spruce or Columbian pine.

And how tight a fit should it be to the masthead bearing in mind the possibility of it splitting?

Finally, what about the finish? Is it best varnished or white-painted?

Sandro Picchio
Vedano al Lambro, Italy

RICHARD HARE REPLIES:

Considering the size of this component and its extreme exposure to weathering – particularly in your glorious Mediterranean sunshine – I would seriously consider making it using a lump of plywood.

You're right to be concerned about splitting: I can see how a 20mm-thick solid wood cap could easily fracture. Plywood, with its cross-laminating veneers, will make splitting virtually impossible.

It should be easy enough to source a small piece of 20mm thickness exterior or WBP grade



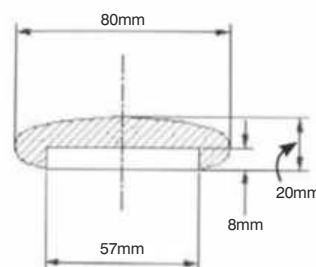
Richard Hare

Here's a typical masthead cap made from plywood

plywood from a local boatyard.

You are also right to highlight the tightness of the fit. I suggest you make the hole about 4mm larger diameter than the top of the mast. Your 'cheese wheel' can then be bonded on with a PU adhesive like Sikaflex. Do this when the spar has a low moisture content, ideally at the end of the summer season. This will reduce the likelihood of the spar shrinking after the cap has been bonded onto it.

Once you have shaped the component I suggest you encapsulate/sheath it using epoxy adhesive-soaked mat. One layer, well bonded, ought to be fine. This will keep the weather out. I think it would be best to paint it to protect the epoxy from UV. A good quality single pack yacht enamel paint ought to be fine although two-pack would be better.



50 of the most frequently asked boating questions are answered by our experts on the PBO website. Visit www.pbo.co.uk



GAS FITTINGS
Peter Spreadborough, of Southampton Calor Gas Centre, has 20 years in the industry



PAINT AND ANTIFOULING
Richard Jerram is former UK technical manager of International Paint



YACHT DESIGN
Andrew Blyth is a naval architect with interest in stability and buoyancy



TOILETS AND PLUMBING
Gary Sutcliffe of Lee Sanitation knows about holding tanks, toilets and plumbing



TRAILER-SAILING
Colin Haines is a design engineer who has trailer-sailed for 25 years



ELECTRONICS
Chris Ellery of Greenham-Regis Electronics is a former Merchant Navy officer



BOATBUILDING
Tony Davies has been building and repairing wooden, GRP and steel boats for 40 years



WOOD
Richard Hare is a wood technologist and long-time wooden-boat owner

GAS FITTINGS

Installing a solenoid gas valve

Readers express concern over an article in the October issue – and explain how to fix it

■ Re David Berry's article 'How to install a solenoid gas valve' (PBO October 2015), the two switches shown are wired in parallel, like a domestic two-way lighting circuit such as a hall and landing. The result is that either switch in either position can turn the system on – there is no standard 'off' position for either of them, leaving scope for the gas to be left on if the LED is not noticed or if it fails. If they were wired in series then both switches would have fixed on/off positions and both would have to be 'on' for gas to flow. Either switch could be set to 'off' to turn it off.

Neil Russell
Cosham

■ Being a registered gas installer for LPG, I was alarmed at the way this installation was tested. There was no mention of a strength test of the new pipework section, and the size of manometer used is not suitable for testing LPG. The test procedure should be a five-minute temperature stabilisation, then a five-minute tightness test. The 30-minute test in the article could have missed a small leak as the ambient air temperature could have made the manometer creep up.

Kevin King
By email

■ The solenoid valve is fitted with a Hirschmann connector (the connection block). This is not gas-sealed or waterproof, so it should not be allowed in an area such as the gas locker. When there is a loose electrical connection in the block, sparks can occur.

Tjerk Rodenhuis
By email



The solenoid valve used in PBO's October feature may not be suitable for boats, according to our gas expert

PETER SPREADBOROUGH

REPLIES: Hamilton's advertise the solenoid valve used as suitable for a recreational vehicle (RV), but I have concerns that it is not suitable for a marine environment.

From experience, the terminals of the coil will corrode and the valve will fail to operate.

Secondly, because the terminals are not encapsulated, the valve cannot be considered flameproof or intrinsically safe for gas.

Additionally, when in prolonged use the valve will get very hot. This can easily exceed 60°C, which is the limit to which flexible hose should be exposed.

A more suitable solenoid would be like the one supplied by Nereus Alarms of Poole. This valve is sealed in resin to make it waterproof, flameproof and intrinsically safe for gas. Also, a nice feature of this product is that the power consumption is reduced once the valve is open to a mere 0.2A at 12V (compared with around 1A for the valve used in the feature) so it does not get hot.

The procedure for soundness

testing is laid out

in PD 5482-3:2005 Annex C.6.2. In a nutshell, it should be tested with air at a pressure 45mb, left to stabilise for five minutes and then tested for two minutes with no discernible drop in pressure. In the article, the installation could not have been checked at 45mb as the manometer is only calibrated to 30mb.

DAVID BERRY REPLIES: The valve I used is a type VMR010, manufactured by Elektrogas who are a major supplier of gas solenoid valves and who kindly supplied me with information on the Standards their units meet.

The online datasheet they supply clearly indicates the connector housing is rated as IP54 which, as Peter Spreadborough and Tjerk Rodenhuis agree, is not suitable for use in the gas locker of a boat, due mainly to the highly corrosive salt-laden atmosphere and

potential for exposure to leaking gas. A solution is to replace the electrical unit with a sealed IP67 one: an internet search turned up a number of suppliers who can provide a plug-and-play replacement, and this is the course I shall follow to make the valve more safe.

The datasheet also indicates that it is normal for the solenoid to

get hot. After Peter's comment I measured mine and, sure enough, the coil was 86°C. However, the valve body, presumably cooled by the metallic conduction path, was 43°C. Perhaps we should question why this valve is considered suitable

in this respect for an RV but not for a boat? The Nereus valve seems an ideal solution, but at a rather high price.

While I have faith in the testing procedure I used, the Standards cannot be argued with: so anyone who is interested in carrying out a gas test after replacing a hose, cooker or anything else should follow the procedure Peter and Kevin King describe. I shall be re-testing my installation. My method was based on what I was taught a long time ago when I worked for the now defunct Wales Gas, and that was natural gas.

Neil Russell suggests wiring the two switches in series rather than the standard two-way configuration I used, which relies on having an LED as an indicator.

It's a good idea if you prefer to look at the switch position rather than rely on an LED.





The Kiwiprop Feathering Propeller

faster sailing • powerful motoring • outstanding reverse
stainless steel boss • adjustable pitch • zero blade corrosion

K3 – 3-blade Kiwiprop • 14 to 56 hp engines • All sizes £845 + VAT

The new K4 – 4-blade Kiwiprop • Up to 100hp engines • All sizes £1495 + VAT

VECTA MARINE • Tel: +44 (0)1672 564456 • www.vectamarine.com • sales@vectamarine.com



London Boat Show

08
~17
JAN
2016

BEFORE
8 JAN **£10**^{*}
TICKETS FROM
.....
15YRS & UNDER GO FREE[†]

WHERE ADVENTURE STARTS,
PIONEERS MEET &
INNOVATION SHINES

PLUS

The Telegraph Travel Show
The Telegraph Cruise Show

FIRST THREE DAYS ONLY
– See website for details

Follow/like us at
LoveBoatShows



londonboatshow.com

BROUGHT
TO YOU BY:



OUR PROUD
SPONSORS
& PARTNERS:



VENUE:



^{*}Tickets full price from 08 January 2016. Offer ends midnight 07 January 2016 and excludes public preview day. A fee of £1.95 applies per transaction, not per ticket.

[†]Terms and conditions apply. See londonboatshow.com for details. All information correct at time of going to press. E&OE.

rescue**ME**

Survival Solutions

Compact • Affordable • Superb Battery Life

EPIRB1/E100G

Emergency Positioning
Indicating Radio Beacon

PLB1

Personal Locator
Beacon

MOB1

Man Over Board [Personal
Locator inc. AIS & DSC]

EDF1

Electronic
Distress Flare



info@oceansignal.com

www.oceansignal.com

SHOW OFFER – FREE EXHAUST SILENCER & NOISE REDUCTION PACK
See us at the London Boat Show on Stand C042

Eberspächer Heating QUIETLY KEEPING YOU WARM

For best quality, local supply, installation and service



A WORLD OF COMFORT



Eberspächer

www.eberspacher.com – 01425 480151

26 Tips for winter season sailing

Sailing in winter sounds like a tricky business – but if you take some simple precautions there should be nothing stopping you, says Ben Meakins

Who hasn't looked enviously from the deck of their laid-up boat in a yard on a crisp, sunny winter's day at a boat sailing gently by, a steaming mug of tea in the owner's hand. In the right conditions, winter sailing can be a joy.

But winter weather windows can be small, and you need to act fast if you want to make the most of a day on the water. Your reward will be a low sun, flat water and deserted cruising grounds.

Many sailors make the most of reduced rates and learn to sail or do their Yachtmaster exams in the winter, when the sailing schools take advantage of empty cruising grounds and long nights to school their students in the arts of navigation and night sailing.

If you're able to keep your boat in the water, you'll extend your sailing season and be able to break the winter up with some truly memorable sails. But what should you do to keep your boat ready for the off... and do you need extra winter cruising kit?

Here are some tips and tricks to make you and your boat winter-sailing ready.

1. Keep your tanks topped off



It's worth filling up with fuel and water as often as you can in the winter: fuel berth opening hours are likely to be reduced, and hoses may freeze or the water supplies may be turned off to protect the pipes – which makes it tricky to refill your tanks!

2. Fuel tank

Another reason to keep your fuel tank topped up for winter is to reduce condensation. A full tank has much less empty surface area for it to form, and thus less chance of diesel bug forming, especially if you also use an anti-diesel-bug additive.



Water in a fuel tank can lead to a build-up of filter-clogging 'diesel bug'

3. Engine

For boats left afloat in salt water, it's unlikely that the temperatures will dip low enough to cause any water left in the engine to freeze, but it's worth attending to if a particularly cold snap is forecast. Make sure the coolant is topped up with the correct mix of antifreeze, and if you're really worried, run some antifreeze through the raw-water system.

4. Batteries

Starting a diesel engine from cold in winter temperatures will require more power than it does in the summer, so it's worth making sure your batteries are topped up – either by a small solar panel, or by taking them home for a recharge now and then.

5. Bedding

If you're keeping your bedding on board so you can make a quick getaway, consider storing it in a vacuum bag. These keep linen and duvets dry and mildew-free: the air can be sucked out with a 12V vacuum cleaner if you're not on shore power.



6. Keep your pontoon mooring safe



Pontoons grow moss, algae and lichen in the winter months and can get very slippery. Consider scrubbing yours clean, using something like Ronseal's Decking Cleaner, and then doing a final scrub with salt water. The salt in the surface of the wood will make it less likely to ice up.

7. De-ice your decks

Decks covered in ice can be lethal. Luckily, for boats sailing in salt water, the answer is all around you – use the sea! A bucket of seawater and a scrubbing brush will soon remove ice provided the air is above Arctic convoy temperature.

8. Plan short passages

With fewer daylight hours it's best to reduce your expectations and plan shorter sails than you would in the height of



Plan shorter passages when daylight hours are limited

summer. A short hop to a favourite spot is likely to be more than enough on a cold day. If you are doing longer passages, then consider setting off in the pre-dawn so you arrive before dark, rather than leaving later and arriving when it's pitch black and blooming chilly – it'll improve crew morale and safety.

9. Drinks

Keep hot drinks in easy reach, but be aware that caffeinated drinks are often a diuretic – which can be a problem when you're swaddled up in layers like Tutankhamun. A flask is a good way to keep ready-made hot chocolate or your drink of choice to hand.



10. Sustenance

A good supply of food will warm you up nicely. Something that can be heated in the oven is even better – warm up things like pre-bought bread rolls, Cornish pasties or similar to keep the crew happy.

11. Gas

You might like to consider changing your gas bottle for a propane one for winter sailing – a simple matter of replacing the regulator, which will have a reverse thread to ensure you don't mix it up. Propane, which is supplied in a red bottle, has a lower freezing point than butane (blue bottles) and won't be as sluggish or as likely to freeze as butane. Camping Gaz, as used by some boats, is a mixture of butane and propane, so should



be OK, but if you're planning to sail in very cold weather, changing to propane will make sense.

Don't forget to take a spare, full bottle with you – it'll be harder to source a refill in winter.



12. Sensible clothing

It can be hard to move when you're wrapped in layers of bulky clothing – but it's best to use lots of thin layers as opposed to a few thick sweaters. The thin layers will trap more air, keeping you warmer, and help you move around. Modern base-layers are very good, as are mid-layers – something like a set of mid-layer salopettes will stop gaps opening up at the waist. A fleece 'snood' will keep your nose, chin and neck warm.

13. Don't forget the shades

Contrary to popular belief, the sun does shine in the winter, and it's a lot lower in the sky – which means you'll be squinting to find that up-sun navigation mark unless you pack the sunglasses.



14. Gloved hands



We tested a full range of waterproof, thermal gloves in PBO last month – and it's well worth getting a good pair. But they do make handling lines and tying knots difficult. It can

be worth taking a glove off to tie a knot, before drying your hands off and replacing it. Some people take multiple pairs of cheap fleece gloves, which they find warmer than waterproof ones – and you can change them as soon as they get wet.

15. Keep lines dry

Trying to keep lines dry will make life much more pleasant – it'll keep your hands warmer and stop the lines freezing should it get really cold.

16. Take wet sails home

Should a spinnaker or headsail that you normally stow below get wet, it's worth



17. Icebreaker needed?

Some marinas situated in locked basins can have brackish water – and can freeze in cold weather! This is Island Harbour marina on the Isle of Wight. Thin ice like this shouldn't stop you going out and you won't end up entombed like Shackleton's *Endurance*, but proceed with caution and have a boathook handy to break it up if necessary.

Ben Meakins



Take wet sails home to dry out properly

taking it home to dry it, rather than letting it fester and make the interior of the boat wet and mouldy.

18. Lifejackets

If your lifejacket gets wet while wearing it, open it up and dry out the innards when you've tied up. Lifejackets don't like staying



Lifejacket cylinders will eventually corrode if a jacket is stored away wet

damp as the automatic firing tablets can start to dissolve and the cylinders to corrode, either of which could stop your jacket working when you most need it.

19. Airing cushions

When you leave the boat, with a dehumidifier on or not, it's best to leave the cushions propped up on their sides to allow the air to flow around them, preventing them getting damp or mildewy. (See 'Taking the air', Practical Projects, p87.)



20. Don't go overboard!

From October onwards, the water temperature around the UK begins to plummet – and with it the amount of time you'll be able to stay conscious in the water. Cold shock can affect your ability to breathe and swim, so lifejackets are essential.

21. Insurance

Most insurers will cover your boat to stay afloat all year, but you may need to find another mooring as swinging moorings and exposed berths are often not allowed. Your insurer will be able to let you know.



Check your boat will still be insured on her mooring during the winter months – many swinging moorings are not covered

Ben Meakins



Avoiding condensation

Condensation is a fact of life on a small boat in the winter, and as stopping breathing isn't really an alternative, you need to look at other ways to combat the problem. Condensation occurs when water vapour finds a cold surface and condenses on it, leading to a damp environment

1. Cabin heaters

You don't need a heater to sail in the winter – but it certainly makes life much more comfortable on board. If on shore power, an oil-filled radiator can be left on overnight, which will not only make things warmer, but also reduce condensation if you also introduce some ventilation.

Away from marinas, there are options for dry heat. The most common is one of the diesel heaters made by companies such as Eberspächer, Webasto or Wallas. These use the boat's diesel tank and run from the battery. They shouldn't be left on all night (the batteries are unlikely to last that long, for one thing) but they are great for keeping boats warm and dry.

Other heaters include kerosene and meths heaters, and some boats still use wood- or coal-burning stoves for the ultimate in homely warmth.



A cockpit tent lets you keep a hatch cracked open slightly without letting too much cold air in

the inside of the fibreglass hull with a product such as Celotex or another insulation, and then stick headlining over the top, the boat will stay warmer and dryer in winter and cooler in summer. If you're replacing your headlinings this winter, then it might be worth bearing in mind to improve winter sailing in future.

3. Cockpit tent

A cockpit tent means you can keep a hatch cracked open a touch and thus keep condensation at bay – without

letting huge amounts of cold air into the boat. In rain and even snow, it means you can keep wet sails and clothing outside and generally make the boat more habitable.

4. Window covers



Dylan Winter

Boat windows are both a major source of heat loss and, consequently, a prime candidate for condensation. One trick is the one used by PBO contributor Dylan Winter – he cut an old foam camping mat to shape so that it fits inside each window, blocking out light, preventing condensation and improving insulation.

Visit youtu.be/zj5bBXrABs to see how he does it.

5. Run a small dehumidifier

Another option, if you're in a marina, is to run a small dehumidifier at night to reduce condensation as you sleep. These will dry the boat out and minimise condensation.



Mark Green



Sticking Celotex or similar insulation under headlining will keep your boat more warm and dry

The Complete Course...

...it's all you need to learn

- Start Yachting
- Essential Navigation and Seamanship
- Competent Crew
- Day Skipper
- Coastal Skipper
- Yachtmaster Offshore



Incredible value for all these RYA courses
Version 5
Still only **£49.95**
Price held at 2000 level
No increase for VAT

It's all here! On one DVD.
No need for individual course CDs

Interactive - easy to use • Traditional + electronic navigation

Seamanship • Plus Sail and Power Handling

FREE Neptune & Meridian demonstration software

Digital exams for RYA Day Skipper and Yachtmaster
... and much more

© LONGBOW SAIL TRAINING

Order from
www.longbow-uk.com
or
01726 844400

Used by RNLJ Training

THE INDISPENSABLE SKIPPER'S MATE

"MARINA FRIENDLY FLOATING GRAPPLING HOOK"

LINE-A-SURE.

£69.95

OR 2 FOR £99.00
WITH FREE POSTAGE

FOR SALES & ADVICE
www.line-a-sure.co.uk
or call 01858 434545



PROUDLY MADE IN GREAT BRITAIN



PATENTS: GB2471340, GB2502550B

QUICK FIX

The **GX1700E**
Advanced fixed DSC VHF
radio featuring built-in GPS



The compact GX1700E has a built-in 12-channel GPS receiver, therefore there is no need for an external GPS feed. This makes installation as quick and as easy as possible and ideal for all types and sizes of boats.

With an affordable price the GX1700E is easy to use and also offers a navigation waypoint display, user selectable ATIS mode and an optional remote station microphone.

It also comes with a three year waterproof warranty.



STANDARD HORIZON

www.standardhorizon.co.uk

Email us at sales@standardhorizon.co.uk
or call us on +44 (0)1962 866667

Replacing hull fastenings

With the help of the International Boatbuilding Training College, Richard Johnstone-Bryden describes the process of hull fastening replacement

Your planking may still be in good condition, but some of the hull fastenings may look past their best: so how do you replace them without damaging the plank? I found out when I travelled to Oulton Broad's International Boatbuilding Training College (IBTC) and spoke to the former principal Nat Wilson, who explained the process while Dave Sales demonstrated the techniques.



1 To remove the old copper nails without disturbing the wooden plank, a hole is drilled in the copper nail head.



2 A sacrificial screw is then screwed into the copper nail.



3 The sacrificial screw provides a point of leverage that can be gripped by a claw hammer to pull the old nail out of the plank.



4 The extracted copper nail complete with the sacrificial screw.



5 The empty hole is enlarged with a counter bore.

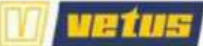


6 A bright new bronze screw is screwed into position as a replacement hull fastening.



7 The two new bronze screws can be clearly seen in position.

What do these companies know, that you don't?

Find out by subscribing to

IBI PLUS
NEWS • INTELLIGENCE • DATA

Search www.ibi-plus.com

For more information contact Isabella Grantham
Isabella.Grantham@timeinc.com | +44 203 148 4286

ESSENTIAL READING FOR OVER 13,500 KEY INDUSTRY PROFESSIONALS

Trailable, sailable, saleable

The emergence of new small boats from UK yards is good news all round, says David Harding

Is it too soon to say 'hooray, Britain is building small boats again!?' Perhaps it is. On the other hand, while the launch of two great little new boats hardly represents a revival in our boatbuilding industry, it's a good sign.

Over the past 20-odd years, the number of sailing-yacht builders in the UK has dwindled to the point where just a handful now remain. We've had imports aplenty, of course – mostly of larger yachts, because that's where the dealers make their money. And when

times were good, many people seemed determined to buy the biggest new boat they could afford. A number of new faces did pop up distributing small, low-cost offerings from eastern Europe, but many of them proved to be short-lived and some of the

boats, shall we say, were better than others.

What we've needed for a long time is more builders on our own shores, especially of smaller boats, because the choice has been so limited in recent years. There's no substitute for being



KITE

The Kite



Some people still don't believe that a gaffer can cut it when it comes to practicality or performance – let alone both. Gaffers don't go to windward, they say (as some in darkened corners still do about multihulls). And what's the point of a having a stick poking out

from the front of the boat and a mainsail hung from a yard at the top when you can have an efficient modern rig? At this point, gaff enthusiasts might gently point out that they've been ahead of the game for decades: it's only in the past few years that racing yachts have discovered bowsprits and square-top mainsails.

Wherever the discussion might go from here, the fact is that modern gaffers – and other designs that draw inspiration from traditional craft – are winning converts because they can be both practical and fast. For example, who would have believed a few years ago that a 6.4m/21ft gaffer designed as a simple, easily-managed trailable weekender could beat Squibs around the race course – and competitive, well-sailed Squibs at that?

This is exactly what the first production model of the Kite has been doing, among other things.



The long cockpit provides generous seating and plenty of locker space. It's too deep to be self-draining, so there's a sump beneath the sole

We introduced the Kite in the May 2015 issue of PBO after I sailed two epoxy-plywood versions at the English Raid in Falmouth. Kite No1 is jointly owned by her designer, Andrew Wolstenholme, and her builder, Colin Henwood, while Dick Phillips built No2 with a slightly longer coachroof for an owner on the Dart.

I was impressed by the design and delighted to hear that a production version in GRP was being developed on the East Coast. After all, the Kite is fast, fun

and responsive. She has an enormous cockpit, a two-berth cabin with ample space for weekending, an all-up weight that makes her easy to trail, a profiled, fully-retractable centreplate, spars short enough to stow within the length of the boat (a big tick for the gaff rig) and a carbon mast that weighs just 7kg (15lb). No one is going to struggle to raise that. It's a pretty good list of ingredients for civilised trailer-sailing in a boat that also looks the business.

RTC 22



able to jump into your car and drive down the road to speak to the guys building your boat, perhaps about raising one of the backrests by an inch because that's how you want it. This isn't to say there aren't some super little cruisers, dayboats and

weekenders being built on the near continent by knowledgeable people who speak perfect English, because there are – and we've tested some – but there's still little to beat home-grown if you can find what you're looking for.

Whether more new small-boat

builders will emerge in the UK to join the two featured in these pages, we will have to see. But there's no doubt that the economic climate since 2008 has led more people to appreciate what small boats can offer. Sailors are choosing to move down in size for reasons other than economic necessity. At the same time, some builders who have experienced the difficulties of managing production and maintaining quality at an overseas yard have come to appreciate the practicalities of setting up shop in the UK.

Common differences

Significantly, both boats featured here are built by yards that are well established in their own fields but not known to the sailing public for production boatbuilding.

The builder of the Kite, Demon Yachts, specialises in several areas, building record-breaking ocean rowing boats, making rudders for Oysters and being a leading light in the rarefied world of optimising metre yachts to the extent that an International 8 Metre was recently shipped over specially from the USA. Demon do CAD design, CNC plug and mould

work, vacuum-bagging of composite laminates and design-and-build projects, restorations, refurbishments and optimisations employing everything from traditional shipwright skills to precision engineering in carbon fibre.

Composite Mouldings (CML), who build the RTC 22, work principally in the commercial sector producing boats and mouldings for harbour and port authorities, the police and the MOD among other clients. They build industrial mouldings, RIBs for the navy, components for superyachts and scale models of container vessels as well as undertaking repairs on anything from lifeboats to cruise ships. They have been contracted to build motor-cruisers for well-known names and, having taken over 12 years ago from Blondcell – a name some readers will remember – have been producing the Hawk dayboats for Reid Marine.

CML too have a full range of in-house design skills, and director Warwick Buckley is one half of Buckley Yacht design with his son, Jami, who drew the lines for the RTC 22.

Colour-coordination: creamy deck and sails, white spars and gold-coloured ropes



Kite interesting

The Kite is far from being the only modern trailable sailer to incorporate elements of traditional appeal. Others include the Cornish Shrimpers – the 19 and now the 21 – and, of course, Swallow Yachts' BayRaiders and BayCruisers, which represent more of the modern-meets-classic hybrid approach. Although she will often be compared with both the Shrimpers and the 'BaySailers', the Kite differs from both: she's lighter and

more sprightly than the former and more traditional in style than the latter.

Don't, however, be deceived by the gaff rig, single-chine hull, spruce bowsprit and mahogany and teak trim, because there's a lot of tech behind the trad. For a start, building a 21-footer weighing just 750kg (1,650lb) in epoxy ply is one thing, but building the same boat to the same weight in GRP is quite another, especially given the flat panels inevitable with a single chine.

Tech spec: Kite

PRICE: £31,950 (trailer £2,200)

LOA (plus bowsprit): 6.40m (21ft 0in)

Beam: 2.13m (7ft 0in)

Draught – centreplate up: 0.25m (0ft 10in)

– centreplate down: 3.16m (3ft 10in)

Weight (dry): 750kg (1,654lb)

Ballast – centreplate: 80kg (176lb)

Internal lead: 115kg (253lb)

Sail area: 19.7sq m (212sq ft)

Builder: Demon Yachts
www.demonyachts.co.uk



This is where Demon Yachts come in. Resin-infused laminates incorporating vinylester resin, multi-axial glassfibre and a foam core might be ambitious for some but are hardly pushing the boundaries for a yard like this.

Strings for a Kite

All too often when stepping aboard a production cruising boat – recently-launched or otherwise – you find aspects of the hardware and cordage that just aren't right and that

compromise efficiency to the detriment of sailing pleasure. Not so with the Kite. She's rigged and fitted out in a way that's simple and efficient, reflecting Demon's understanding of what makes a boat tick and the directors' experience with performance yachts and racing dinghies.

Barton hardware is used extensively, though the mainsheet blocks are from Allen. Most of the cordage is in a golden colour that goes nicely with the off-white hull (Flaxen is the official name



for the colour of the gelcoat) and the well-cut cream-coloured sails from Mike Mac. It's all pretty minimalist – keeping things light and simple was the aim – but tastefully done.

In Falmouth I sailed the Kites on flat water, so this time it was good to have 12 to 15 knots of easterly kicking up a respectable chop off Harwich and Felixstowe. For a light 21-footer our test boat, Kite No3, was smooth and surprisingly dry upwind. In fact, the only time we took much more than a splash aboard was inside the harbour, when the wash of a passing workboat hit us on the beam.

In open water the GPS was showing unrealistic upwind speeds of 5.5-6 knots. That might have been due to the ebb tide, but it was the same on starboard tack when we should have been across the stream. Maybe the tides do strange things in these parts. What's clear is that the Kite doesn't hang around. Off the wind she quickly slid past the 10m (33ft) yacht under sail from which I was taking the photos. She also

had the legs upwind most of the time.

Despite the chop, our tacking angle was a consistent 90°. That's not bad for a small, light gaffer in a seaway. With the sheets eased and the wind abaft the beam she was eager to surf, though our peak on the GPS of a modest 7.5 knots confirmed that the tide was against us. In any event we would have needed a lot more breeze to break the designer's current record of 11 knots.

Kite easy

Importantly for a boat designed to appeal to a wide audience, the Kite is easy and forgiving to sail as well as fast. The helm felt nicely light, and lighter than I remembered from Falmouth. That might have been because this time I jumped straight aboard from eight tons of steel cruiser with a barn-door rudder.

In the circuits and bumps routine she scored highly. We maintained headway when pinching mercilessly, and she stalled only briefly if brought to a standstill



Kite surfing: downwind with a few waves, the Kite is eager to get up and go

The RTC 22



Back in the 1970s and 1980s, British builders were producing hundreds of sporty trailable 22-footers. We had the Evolution 22, Anderson 22, Caravela 22, Atlanta Catch 22, E Boat, Timpenny 670, Skipper 700, Limbo 6.6, Eclipse and Fox

Terrier for a start, not to mention all the others of similar size including the Jaguar 21 and Parker 21.

These were wholesome little boats; trailable sailers rather than trailer-sailers but all quick and capable, most able to give a good account of themselves on the race course, and some – such as the E Boat and Anderson – with Atlantic crossings on their CVs. You can still buy good examples on the second-hand market, sometimes for ridiculously low sums, but where are the new equivalents? Barring something that we haven't been told about, there aren't any. Or at least there weren't until the RTC 22 came along.

Breaking with tradition

As we discussed in relation to the Kite, most trailable boats of this size currently on the market are in the semi-traditional style. This makes sense for ease of trailing and launching, because a gaff or gunter rig eliminates the need for spreaders and keeps the mast short, easy to stow and simple to raise. It also keeps the centre of



Double guardwires are an unusual and practical feature on a 22-footer. They're more comfortable for racing crew hiking on the rail – who are also helped by the bevel on the hull-to-deck joint – and more secure for cruising

effort low, so more of the ballast can be internal to reduce the weight in the centreplate.

This combination of a low CE and relatively high CG isn't a recipe for ultimate performance although the Kite, for example, does go remarkably well. Ultimately there's still no substitute for a taller rig, tighter jib luff, greater sail area and lower centre of gravity if you want to get the best from a boat of any given length. That means forgetting the trad and embracing the modern, which is exactly what the RTC 22 has done.

The RTC's slim hull first appeared at the Southampton

Boat Show in 2014. She was there again in 2015, several stages closer to completion and finally ready for sailing – if not fully finished in every respect – a month or so after the show. Her builder, Warwick Buckley, warned me that he hadn't sailed her in much more than a zephyr, so we were both set to experience something new when we headed down Southampton Water in a gusty and shifty 12 to 20 knots of north-easterly.

It was instantly clear that the RTC is very easily driven. The turbulence from the transom became a clean flow at around 6 knots and she accelerated to an



A petrol outboard up to 6hp can be used. This Torqeedo produces the equivalent of 3hp

before being asked to carry on with the sheets still pinned in. She hove to surprisingly happily for a boat with a large mainsail and small jib, and could be gybed around without the sheets being touched. The rudder gripped well, too. If we provoked her by over-sheeting and sailing too deep, it hung on until the gunwale was awash – and she took some



The Green Kite. Whatever your choice of upholstery colour, there's room to stretch out or sit up down below, plus galley space under the bridgedeck

pushing to go over that far.

It goes without saying that it would be sacrilege to sail a boat like this with a prop dragging through the water. The outboard can't be tilted up, so you lift it into its dedicated locker and insert the fairing plug in the well. If you're into power-sailing you can use up to 6hp. Demon have a Torqeedo that produces the equivalent of

3hp and is ample in most situations. It also goes without saying that accommodation is not a priority on the Kite: two berths, comfortable sitting headroom, space for a chemical loo and some stowage beneath the bridgedeck is all you need for weekending, together with a tent over the cockpit. It's all pretty civilised nonetheless.



Upwind performance is good for a gaffer. She's pretty dry, too

PBO verdict

Andrew Wolstenholme describes the Kite as an update of his popular Norfolk Gypsy, but 'half the weight and twice as fast.' There's not really any penalty for shedding the weight – just easier trailer-sailing and a lot more performance. If the idea of a trailer-sailer gaffer appeals, you might find it hard not to like the Kite.

Tech spec: RTC 22

PRICE: £27,950

LOA: 6.82m (22ft 4in)

LWL: 6.50m (21ft 4in)

Beam: 2.50m (8ft 2in)

Draught – keel up: 0.50m (1ft 8in)

– keel down: 1.51m (5ft 0in)

Weight (dry): 800kg (1,763lb)

Ballast: 360kg (793lb)

Sail area: 28sq m (301sq ft)

Builder: Composite Mouldings Ltd
www.compositemouldings.com



Despite the low freeboard, the combination of a long coachroof and broad stern creates a good deal of space below decks

effortless 7.4 knots with the wind on the beam, maintaining 6 knots plus most of the time even in the lighter patches. On the wind we clocked speeds in the mid-to-high 5s, and this was with a boat whose sails couldn't be pulled into the right shape because the hardware still needed sorting – though the jib sheet could easily be led to the windward winch, which is always a good idea.

Also in need of sorting was the balance of the blades on the twin hinge-up rudders which, combined with the short tillers, made the helm uncomfortably

heavy. This should be simple to resolve and will transform the feel of the boat. At a more fundamental design level, a number of tweaks might be made to the hull: softening the chines, moving the longitudinal centre of buoyancy forward to lift the transom clear of the static waterline, and adding an inch or three to the freeboard. This sort of thing is all in a day's work for Composite Mouldings and Buckley Yacht Design. When it's all as they like it, they will build the tooling – the prototype is in plywood and cedar strip – and

go into production, probably offering a sports version with a longer cockpit and shorter coachroof as well.

Accommodation

For a slim-hulled 22-footer the RTC offers a remarkable feeling of space. You also get four generous berths, comfortable sitting headroom and provision for a galley. The case for the bulbed, vertically-lifting keel is braced by a seriously beefy-looking web. A centreplate will be offered as well, swinging up beneath the hull to minimise internal intrusion.

PBO verdict

This is a boat whose development will be worth watching. If the potential of the design is fully realised – and we hope to follow her progress – she will be a quick and attractive little sports cruiser offering enough variations of cabin, cockpit and keel to satisfy a lot of people. A boat like this has been needed for a long time.



IT'S BETTER BY

PARASAILOR

SEA TEACH LIMITED, EMSWORTH

www.seateach.com/parasailor • 01243 375774

Filling a grease gun

**STEP
BY
STEP**


Don't laugh: what might be a simple task for some of us can be a total mess for the uninitiated, so PBO Expert Tony Davies demonstrates a clean and efficient method of filling a grease gun

The seemingly simple job of filling a grease gun or remote stern gland greaser causes incredible difficulties for many boat owners. When performed correctly it is clean and uncomplicated, but unless it is done properly it is easy to get into a terrible mess trying to stuff handfuls of grease into the end of the gun and then poking it down to remove the trapped air. There is an easier way...



1 A typical small grease gun, ideal for use on a boat. Inside the gun, the grease is pressurised by a strong spring inside the pump body. Pumping the operating handle allows grease into the nozzle and further pressurises it to overcome the resistance of the tiny valve inside the grease nipple.



2 To fill the gun, the plunger is first pulled out to the locked position. The locking method varies between makes of grease gun, so check how it is done before starting.



3 With the plunger locked, the nozzle end can now be unscrewed. The plunger is then slowly released, and any grease within the body pushed out: this can be put back into the tin of grease to use again.



4 Small tins of grease have a flat disc inside with a hole in the centre. This is provided to ease gun filling.

5 The end of the grease gun body, with the nozzle end removed, is placed onto the disc and pushed down while at the same time pulling up on the pressurising plunger of the gun. The combined effort of pressing the gun down and lifting the pressurising plunger up forms a partial vacuum and forces grease into the gun's body with little or no trapped air, and ensures the body is almost totally filled with grease.



6 With the gun full of grease, the pressurising lever – which is fully out – is again locked into the open position. The nozzle is then screwed back on and the pressurising lever released.



7 If there is an air bleed nipple, this can now be opened to free trapped air. If there is no air bleed, pump the handle a few times to remove air and allow grease to start flowing, and the gun is ready for use.

Remote stern greasers are filled by removing the top cap and unscrewing the body from the base. The body is then simply pushed down on the disc in the tin until it is totally filled with grease. When it is full, the body is refitted to the base, the pressurising screw in the top cap is unscrewed and the cap refitted ready for use.





US National Oceanic and Atmospheric Administration

Identifying ocean GIANTS

Lindis Bergland explains how to understand and identify cetaceans commonly found in UK waters

Whales, dolphins and porpoises are collectively known as cetaceans, stemming from the Latin 'ceta' meaning 'large sea creature'. All cetaceans are mammals and, like us, they breathe air (at the surface) using their lungs, give birth to live young and are dependent on their mother. Worldwide, there are approximately 86 species of cetacean, ranging across every ocean – and it may come as a surprise to learn that approximately a third of these, 29 species,

have been recorded in UK waters.

Although we commonly refer to cetaceans as whales, dolphins and porpoises, the terminology is somewhat misleading. For example, killer whales and pilot whales both belong to the dolphin family (*Delphinidae*), but are referred to as 'whales', mainly due to their larger size. It is therefore more taxonomically correct to divide cetaceans into two types based on shared characteristics: the baleen whales (*Mysticeti*) and the toothed whales (*Odontoceti*). Baleen whales have baleen plates rather than teeth and filter their food from the water, whereas toothed whales – as the description suggests – have teeth.

All toothed whales, including dolphins and porpoises, have the ability to use echolocation for navigation, hunting and communication. Echolocation can be described as biological sonar, and it enables the whales to 'see' their environment clearly in dark or turbid waters. The whale creates clicking sounds which send sound waves into the water column: an echo returns if the sound

wave hits an object, and the echo is intuitively interpreted by the whale. A structure using air from one of the nasal passageways (the right) evolved to produce the clicking sounds. The other nasal passageway leads to the blowhole, which appear as a single 'nostril' on the head, used for breathing.

Although baleen whales can also make sounds, they do not create clicking sounds for echolocation and therefore have retained both their 'nostrils' for breathing. Baleen whales do not hunt their prey in the way that toothed whales often do, and therefore do not require the echolocation skills to find and chase their food. As the blowholes differ between the two types, the blow – produced on exhalation at the surface – can be used to identify certain species of cetaceans from a distance.

Identifying different species of cetaceans can be tricky as the observer rarely sees the whole animal. Although most species of cetaceans are able to jump clear of the water and many sometimes do, it is more common to spot a blow in the distance or a dorsal fin popping out from the sea.

This article will give some guidance on how to identify the most common cetacean species you may encounter in UK waters.

ABOUT THE AUTHOR



Lindis Bergland is a Marine Mammal Advisor with the Joint Nature Conservation Committee, a public body that advises UK Governments on nationwide and international nature conservation.

Dolphins and porpoises

Part of the larger group known as toothed whales, dolphins and porpoises are the cetaceans most likely to be seen by boat owners. However, distinguishing between the different species can be difficult. They often travel at great speed and, unless they are jumping or swimming very close to the boat, you only spot splashes or the dorsal fin. The dorsal fin is usually sickle-shaped and centrally placed and appears very similar for all species at first glance, although slight differences do exist. If you do get a good look at the body, the different species can be distinguished by looking at the colouration and patterns, behaviour and size.

Wikimedia/NASA



Bottlenose dolphin
(*Tursiops truncatus*)

Size: 1.9-3.9m

Distinctive markings: Short and stubby beak, like a bottle. The dorsal fin is tall and centrally placed. The back is uniformly grey with paler grey sides and a lighter belly.

Bottlenose dolphin ID: Often displays acrobatic behaviour. The large size and, ironically, the absence of distinctive markings make this dolphin distinguishable from other species.



Whaleopedia/NOAA



Atlantic white-sided dolphin
(*Lagenorhynchus acutus*)

Size: 2-2.8m

Distinctive markings: Sloping head with short, thick and dark beak. Large sickle-shaped dorsal fin, centrally placed. It has a black back with an elongated yellowish band extending backwards on the side, while the sides and belly are paler grey and white.

White-sided dolphin ID: Active at surface; tall curved fin; yellowish patch extending backwards, and no white on the back behind the fin.



www.animalspot.net



Short-beaked common dolphin
(*Delphinus delphis*)

Size: 1.7-2.5m

Distinctive markings: Distinct groove separating the forehead from the long and slender black beak (sometimes with white tip).

Common dolphin ID: The common dolphin is dark grey on the back with a characteristic hourglass pattern on the side. The hourglass has a yellowish patch in front and a pale grey patch on the side behind the fin.



en.wikipedia.org/Erik Christensen



Harbour porpoise
(*Phocoena phocoena*)

Size: 1.5-1.7m

Distinctive markings: The harbour porpoise has a short, blunt head with no forehead or beak. The colouration is dark grey on the back with a paler patch on the sides and a white belly.

Harbour porpoise ID: The harbour porpoise is the smallest cetacean in UK waters. The dorsal fin is uniquely triangular. The harbour porpoise is not an acrobatic species, and it is common to see just a glimpse of the dorsal fin from the surface.



worldofprehistory.wikia.com



White-beaked dolphin
(*Lagenorhynchus albirostris*)

Size: 2-3m

Distinctive markings: Sloping head with a short and distinctive white beak. Colouration is black on the back with lighter patches on the sides and over the back and tail stock.

White-beaked dolphin ID: The most distinctive identification feature is the pale grey area that extends from the upper sides in the front and across the back behind the dorsal fin. If the species is viewed from above, close to the boat, the white beak will also be noticeable.



Save the Whales/Kate Cummings



Risso's dolphin (*Grampus griseus*)

Size: 2.6-3.8m

Distinctive markings: Blunt, rounded head and no beak. Tall and slender dorsal fin. Dark grey back and sides, but turns lighter with age (due to scarring).

Risso's dolphin ID: Risso's dolphins are recognised by the heavy scarring unique to this species, assumed to be caused by other individuals of the species. It is often regarded as calm compared to other dolphin species.



Other toothed whales

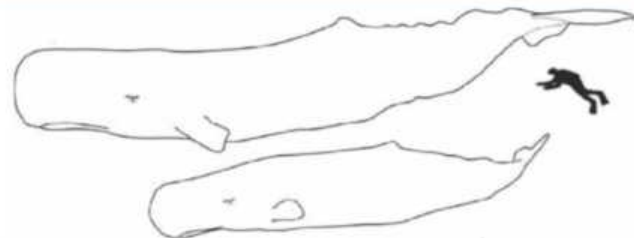
Like dolphins and porpoises, some other toothed whales can be observed around the UK. The three species below are those considered most common in UK waters, in addition to the six species on the previous page.

SPERM WHALE (*Physeter macrocephalus*)

Size: 11-18m. The male is considerably larger than the female.

Distinctive markings: Huge, square head, one-third to one-quarter of the body length. No distinct dorsal fin, but a triangular hump at the top of the spinal ridge.

Sperm whale ID: Bushy blow, 1.5-5m high, directed forward and to the left. Typically calm (log-like) at surface, followed by tail lift as the whale dives.



Dive sequence

■ Sperm whales are distributed worldwide. The whales seen in UK waters are all males, as the females and young stay between latitudes 40° north and south, where temperatures are over 15°C. Female sperm whales live in close-knit family groups, while the males travel to colder and more productive waters where they usually live solitary lives and focus on feeding to grow in size. The blowhole of the sperm whale is unique, in that it is located on the tip of the head on the left-hand side. The blow therefore points slightly forward and about 45° to the left. The sperm whale has no distinctive dorsal fin and, along with its calm surface behaviour, it almost resembles a floating log until it dives. When diving, it typically lifts its tail fluke fully out of the water.



Lindis Bergland

The sperm whale's habit is typically calm at the surface

KILLER WHALE (*Orcinus orca*)

Size: 5-9m

Distinctive markings: Black back and sides, grey saddle behind the dorsal fin and a white belly extending as a 'wave' up the sides, also white under the fluke (tail) and with a white patch above and behind the eye.

Killer whale ID: Conspicuous black and white colouration. Adult males have a tall dorsal fin – triangular and erect, up to 1.8m – while females and immature killer whales have a smaller and distinctly curved fin.



Female

Adult male



Dive sequence

■ Killer whales live in close-knit family pods of between two and 30 individuals, although they are sometimes spotted alone. The tall and pitch-black dorsal fin of the male is recognisable even from a distance. Killer whales often display curiosity and acrobatic behaviour, such as spy-hopping (popping their head out of the water), tail slapping and breaching (jumping clear of the water).

LONG-FINNED PILOT WHALES (*Globicephala melas*)

Size: 3.5-6.5m

Distinctive markings: Dark-brownish grey to black, long flippers, bulbous forehead and no obvious beak. Anchor-shaped lighter grey patch on the chest and belly.

Pilot whale ID: The dorsal fin is wide at the base and deeply curved, and the rounded head is often visible.



Male

Female

Dive sequence

■ Pilot whales live in extremely tightly-knit family groups. The pods can range in size from a few individuals to hundreds (close matriarchal associations). Resting behaviour is calm, but they may display the occasional bow ride, tail slap, breach or spy-hop.

Baleen whales

Baleen whales generally have a larger body size than toothed whales and include the biggest animal on the planet, the blue whale, which can be up to 30m long! The baleen plates are made of keratin, like our fingernails, and consist of a hard plate with brittle hairs trailing the edge. Baleen whales typically have around 300 baleen plates on each side of the upper jaw which enable the whale to sieve the food from the water. The size of the baleen differs depending on species and feeding methods, and ranges from roughly 15cm in minke whales to 4.5m for bowhead whales.



Humpback whale baleen plates

Only two species of baleen whales are considered common in UK waters, the minke whale and the fin whale. Additionally, humpback whales can sometimes be spotted in certain areas. Minke, fin and humpback whales are all 'rorquals', meaning they have ventral grooves that expand and allow huge amounts of water into the mouth during feeding. These species commonly lunge-feed, which means they swim towards the prey – often shoaling fish, such as herring – at speed and take a large gulp of water. The water is then pushed back out through the baleen, trapping the prey behind. Lunge feeding can be seen from the surface.



Lunge-feeding humpback showing the ventral grooves which expand to allow huge amounts of water into its mouth



Lunge-feeding humpback whales

FIN WHALE (*Balaenoptera physalus*)

Size: 19-24m

Distinctive markings: Uniform grey colour, with some lighter areas. Slender, V-shaped

head. White lower jaw on the right, black on the left.

Fin whale ID: Tall blow (4-6m high) shaped like an inverted cone.

Relatively small, backwards-pointing dorsal fin slightly curved, situated one-third from the back.



Dive sequence

■ The fin whale is the second-largest whale in the world. It is distributed worldwide, usually in deep waters (200-4,000m depth). It resembles the minke whale, but is much larger. The tall blow is conspicuous; the whale rolls forward, and for a while only the back is visible. The dorsal fin then appears and disappears as the whale rolls forward. The fin whale is also similar to the sei whale, which is rare in the UK.

MINKE WHALE (*Balaenoptera acutorostrata*)

Size: 7-10m

Distinctive markings: Tall, sickle-shaped dorsal fin situated nearly two-thirds along the back. Dark grey head and body, lighter grey on the sides with distinctive white bands across the flippers.

Minke ID: Inconspicuous (often not seen) vertical blow visible almost simultaneously with the fin. The whale makes an arched roll.



Dive sequence

■ The minke whale is the smallest baleen whale in UK waters. They are usually solitary animals, but do also occur in pairs or in small groups. Minke whales appear shy to boats, although sometimes curious. They usually surface only once or twice followed by a dive, and are therefore difficult to spot and observe from the surface.

HUMPBACK WHALE (*Megaptera novaeangliae*)

Size: 12-15m

Distinctive markings: Broad, rounded and knobby head, long flippers (mostly white in the Atlantic) and a large, stocky body, not streamlined. It is dark grey on the back and down the sides with a white belly.

Humpback ID: Bushy blow (2.5-3m high). Dorsal fin with hump located two-thirds of the way down the body. Usually raise the pointed and serrated tail fluke when diving.



Dive sequence

■ The humpback whale is considered rare in British waters, but has recently been spotted more frequently off the west coast of Ireland and northern Scotland during summer. This distinctive species can be recognised by the fairly small dorsal fin with a hump at the front base. The humpback whale often displays acrobatic behaviour, including breaching, slapping with the flippers and lunge feeding.

REFERENCES

Whales and Dolphins of the European Atlantic, by Dylan Walker and Graeme Cresswell, 2008, WILDGuides

The International Whaling Commission website: <https://iwc.int/cetacea>

Whales, dolphins and porpoises, by Mark Carwardine, 1995, Dorling Kindersley



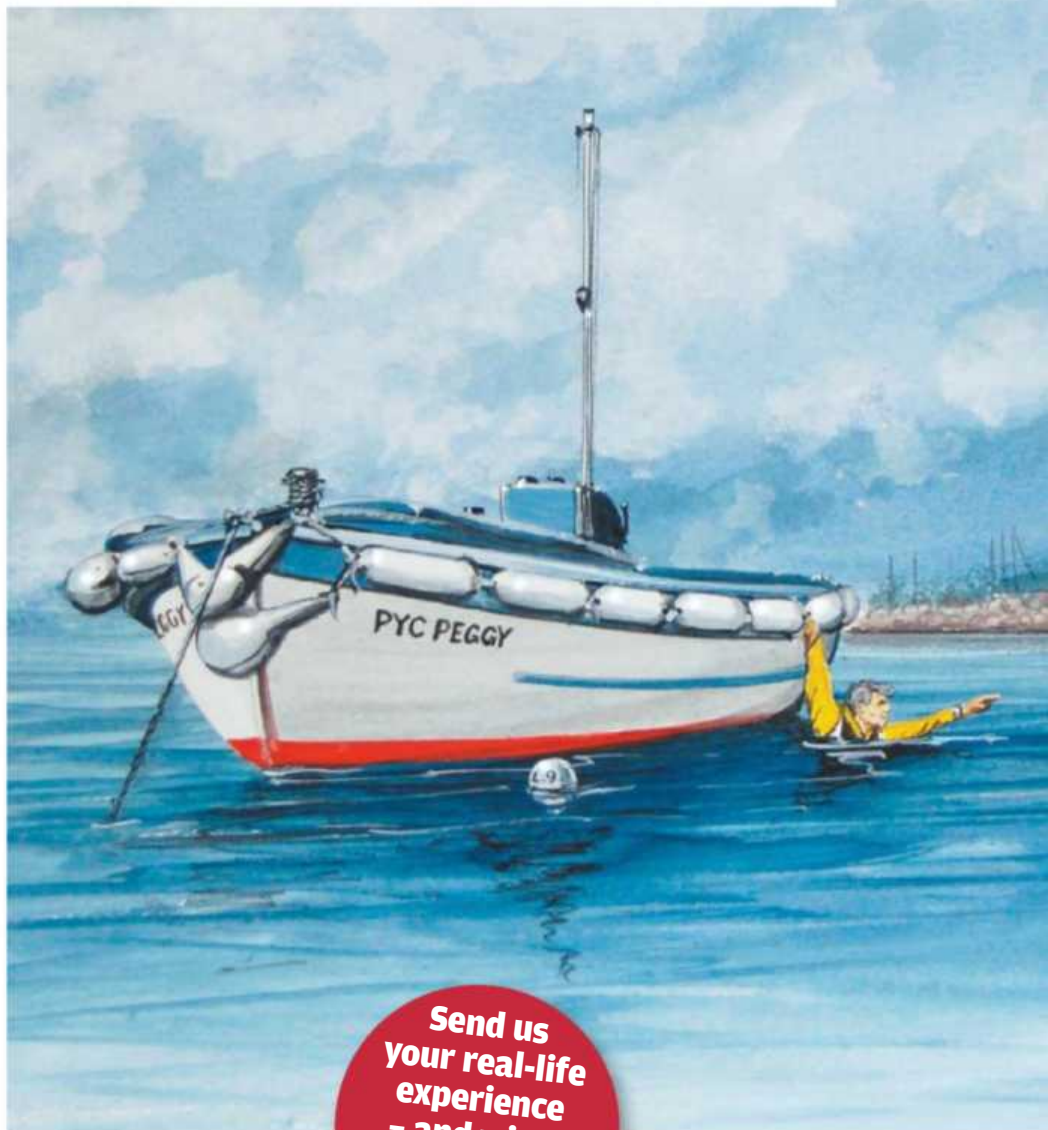
Warp factor nil

David Savile Platt warns against trying to retrieve a mooring buoy without a boat hook: the consequences can range from damp to disastrous

Approaching my mooring immediately after racing my Cornish Shrimper *Endeavour* recently, I attempted to pick up the white mooring buoy without the aid of the boat hook. Mainsail up, outboard running, gently into the wind alongside the open launch I had left on the mooring. I lay on the side and reached for it between the two vessels. Just one more stretch to reach it, I thought – but then I slid inexorably off the side and into the water between the two boats.

At least I had my buoyancy aid on, so I floated nicely. It was a balmy evening, the wind was very light and my crew, Sue, was on board; so it appeared there was little to worry about. However, slowly but surely the two vessels parted company – my class captain told me after the event that I should have tied on to the launch first before attempting to pick up the mooring warp, but I didn't – so now Sue was drifting slowly towards the rocks on *Endeavour* while I remained in the water, clinging to the 20ft launch.

I managed to reach over the gunwale and grabbed a port-side warp on the launch, then made a bowline in it for my foot – which wasn't easy as I was up to my eyes in water and trying to keep my head up. However, it was still too low to enable me to climb aboard. I tried again, making one more bowline higher up the warp, and this time I almost made it – but not quite. Try the stern. Use the rudder. No go. By



Send us your real-life experience – and win a painting of your boat!*

now I was very tired and could do nothing but hang on: and meanwhile, Sue and *Endeavour* kept drifting ever closer to the rocks.

I shouted to Sue: 'Come back alongside the launch. Just put the outboard in gear.'

'Where is the gear lever?' she shouted back.

'The little black lever on the side,' I replied. She couldn't operate the outboard, so she gave it some choke and it stopped: and then it wouldn't start again with the choke full on. 'Use the VHF to call for a RIB,' I shouted.

'I don't know how to use the VHF!' At this juncture, I swam away from the launch to be more visible, waving my arms and calling 'Man overboard!' to some Lasers returning to the club from their evening racing. Two saw me and

came over: thank heavens for that. A kind young man allowed me to slither onto his Laser, then with some difficulty managed to take me

alongside my Shrimper. I thanked him and clambered/slid/fell into the cockpit of my boat, now just 6ft away from the rocks. By this time I was absolutely exhausted, wet through and in a pretty ratty frame of mind!

Start as you mean to go on

The outboard started first time, so I gently motored to the launch, tied up, retrieved the warp, lowered the mainsail, turned the outboard off and packed up the boat. We took the pilot launch back to the club, and I praised Sue for managing to keep the boat away from the rocks with the mainsail alone. In addition, I promised to

ABOUT THE AUTHOR



David Savile Platt races his Cornish Shrimper from Parkstone Yacht Club. A qualified Yachtmaster, he competed in the 1989 Fastnet race; a personal milestone.



arrange a day-sail with her the following week to pass on the essential rudiments of sailing and man-overboard drill.

When I reached my car I was still dripping wet, as was the electronic car key in my pocket: with tiresome inevitability, it wouldn't open the car doors. I called the AA, and was told: 'We are very busy tonight, but we should get to you by 2300.' The AA man turned up at the appointed time and somehow managed to open the doors and get the car started, so I drove home and arrived at 0100! Sailing can be such fun...

My sincere and heartfelt thanks are due to the young man on his Laser who was key to my 'rescue', my crew Sue for keeping the boat off the rocks and our class captain for staying with me until my car was drivable.

Bless you all!

LESSONS LEARNED

Here are the three lessons I learned from this overall experience.

- 1** Firstly, always use a boat hook to pick up a warp – never lie on the side deck and reach for it.
- 2** Make sure your crew can handle the boat on their own and know how to operate the engine and VHF.
- 3** Never carry your electronic car ignition key in your pocket when sailing!

*Send us your boating experience story and if it's published you'll receive the original Dick Everitt-signed watercolour which is printed with the article. You'll find PBO's contact details on page 5.

Boat hooks

Some boat hooks are specially designed for picking up warps: there are many on the market, but here are three which might help.



SWISSTECH RETRIEVING HOOK

This is a snap-hook which mounts onto a boat hook: you can clip it onto the ring of a mooring buoy or a line if required. It's more suitable for buoys with rings, but if you have this type of mooring it's a quick way to pick it up – you can sort out the normal line later.

■ www.bluewatersupplies.com

THE EXE BUOY HOOK

The Exe Buoy Hook is simply a sturdy stainless hook on the end of a glassfibre pole – nothing complicated, just a good-size hook that can grab any line or buoy.

■ www.exebuoyhook.co.uk



LINE-A-SURE

This is a strong plastic grapple which can be disassembled and stowed flat. It can be used to throw over a mooring buoy or pick up a line, as well as for coming alongside a pontoon.

■ www.line-a-sure.co.uk

Dragon's denouement

Steven Schenk dismantles and refits the keel of his 1971 Børresen mahogany Dragon day-sailer

My partner and I, both over 70 now, sail a Dragon as a day-sailer, mainly on the IJsselmeer in the Netherlands. The boat, the former GBR 458, is a 1971 Børresen mahogany Dragon with a one-tonne steel keel. A couple of years ago, while she was lifted out of the water for winter storage, I detected rusty water coming out from the join where the deadwood meets the keel. This concerned me, because rust means loss of material and thus loss of strength of the bolts.

I decided to take her home and let her dry out in the shed for some months before taking action. The boatyard had screwed the bolts in the top of the keel before mounting the keel on the deadwood, so the only way to remove the keel was to remove the nuts from the bolts in the bilge of the boat. Three months after lifting her out I started the dismantling process by lifting the boat off the trailer with two slings mounted on a self-made H-frame, which in turn hung on a three-ton hoist. I constructed a platform from 3cm-thick planks and fitted it with

six heavy-duty swivelling rollers. On the platform, an upright frame was constructed to keep the keel upright.

With the boat lifted, the platform was placed under the keel. The day before I had sprayed the nuts with WD-40, so they came off easily. Then I raised the boat by a few centimetres, but nothing happened; the keel stayed firmly in place. Next I tried hammering the bolts with a sledgehammer, but again, the keel wouldn't even budge by so much as a millimetre.

Drilling begins

The only way to separate the keel from the boat was to drill the bolts out of the oak deadwood. A construction workshop in a nearby town made me a hollow drill, 40cm long, made of steel, with a bore slightly larger than the diameter of the bolts. Then I purchased a low-revolution electric drill, a Makita DP4001, to do the job. Armed with a bucket of cold water to cool the drill and an industrial vacuum cleaner, I placed myself in the bilge and started drilling. After every centimetre of drilling I placed the drill in the water for cooling off and



A construction workshop made me a hollow drill, 40cm long



removed the sawdust with the vacuum cleaner. A long and boring job, but at least the keel gave way and stayed upright on the trolley.

Now the hull was lifted high enough to roll away the trolley

together with the keel and bolts. Some bolts were so affected by rust that they were only half of their original diameter, so it was about time they were replaced. The keel was lifted onto a trailer and carried to the construction workshop. On both sides of the keel I had the exact length of each bolt written with a marker pen to prevent mistakes when fitting the new bolts. The old bolts were sawn off and the parts of the bolts inside the keel were drilled out and a new screw thread was tapped in. The surface of the top of the keel was then ground and the metal primed. I sandpapered the underside of the deadwood with a 40cm-long manual sander, starting with



The keel gave way and stayed upright on the trolley



I tightened the nuts until the sealant came under slight pressure and started to squeeze out a little



80-grit paper and proceeding to 120-grit. The new bolts, stainless steel and slightly oversized at 14mm, were screwed in under high tension after having been treated with Loctite 2701 for maximum adhesion.

Now the refitting started. I placed the keel in the correct position under the hull and carried out a dry run: the bolts slid smoothly home in their holes. Now the hull was lifted by about 20cm so as to have room to treat the underside of the deadwood and the topside of the keel with Sikaflex's 215 primer. The following day, two cartridges of Sikaflex 291 were deployed and a filling knife was used to get an even layer of sealant all over the keel's top surface.

Full torque

Again, the hull was placed carefully over the keel until the bolts could receive the nuts. Since the drill made wider holes than necessary I made six stainless steel plates, 7cm x 18cm, 4mm thick, with a 15mm hole in the centre, to cover the drilled holes in the bilge. I tightened the nuts until the sealant came under slight pressure and started to squeeze out a little.

Twelve hours later I applied more pressure by turning the nuts, and some more sealant – thicker now – came out of the join. The next day I applied full torque to all six nuts,

thereby joining the hull and keel tightly together: freshly-applied sealant would nearly all squeeze out if given full pressure right at the start. A torque wrench was used to give all six nuts the same tension.

Finishing the job

The last thing to do was to fill the space between the new bolts and the holes made by the drilling. I lowered the boat so she rested on her keel, the weight of the hull acting as a precaution when undoing the nuts. Every other day I undid a nut and filled the space with epoxy, after which the stainless steel plates were set in place and the nut was tightened with the same tension as before. Once dry, the excess sealant was easily removed with a sharp filling knife. Thereafter I removed the old excess antifouling from the hull below the waterline, as well as from the keel, by sanding with a disc sander. Then both the underwater part of the hull and the keel were primed with Primocon. To finish the job, two layers of Jotun antifouling were applied by roller.

Now, years later, the join is still barely visible, and no rusty water emerges when the boat is lifted out.

■ With thanks to Richard Johnstone-Bryden for his article 'Checking keel bolts' (PBO Summer 2012).



The perfect gift from £18.99*



Save up to 36%

Give your friend or family member a gift that lasts all year!

- 13 issues home delivered
- Free subscriber *Rewards*
- Direct access to the digital edition



Subscribe online at magazinesdirect.com/CMR5



0330 333 4555 Quote code: CMR5
7 days a week from 8am to 9pm (UK time)

*When you pay by 6 monthly Direct Debit. Offer open to new subscribers only. Final closing date for all orders is 2nd February 2016. For full terms and conditions please visit www.magazinesdirect.com/terms.

Keeping your cool in balmy climes

COST
AROUND
£4

Stu Davies maximises the efficiency of his boat's refrigerator on a trip to the Algarve by introducing a low-cost computer fan to assist the cooling of the condenser

On my Bénéteau Océanis 381 *Sacha*, as on most Bénéteaus, a serious chest refrigerator is fitted. My friends' wives on bigger boats are jealous of the one on mine!

Fridges work by compressing gas, passing it through a condenser where the hot gas is cooled and turns into a liquid. This liquid is forced along copper pipes to the evaporator, which is the cold thing you see in the box. There is a restrictor in the pipe where it enters the evaporator and a pipe going back to the compressor from the evaporator. The compressor sucks through that pipe against the restrictor, which creates a low pressure in the evaporator where the liquid gas evaporates to cool the evaporator. Think about a gas bottle when you use a lot of gas quickly; you can see a frost line on it where the LPG is evaporating. The same principle applies here.

Refrigerator efficiency

The compressor is under the sink in a cupboard with the waste bin. The condenser is also sited there, and relies on fan cooling to condense the hot compressed gases into a liquid that then goes to the evaporator in the fridge compartment, where it evaporates to cool it. The refrigerator's efficiency depends on the movement of air over the condenser: this is where the 'warmth' of the refrigerator is removed. If this condenser is dirty, or air cannot move over it efficiently, then the performance of the refrigerator is compromised. The compressor will run continually and the box won't come down to temperature quickly.

This summer, as we took *Sacha* down to the Algarve, the ambient



An 80mm, 12V computer fan now helps to cool the condenser

temperature was not too high on the way and the fridge worked well. However, once on the Algarve the ambient temperature went up, and at one point it was 30°C in the saloon. The fridge was running continuously – not good for power consumption or the compressor. The cupboard where the compressor is has a hole in the bottom, which has a blanking plate in it, and there's another hole halfway up for the hot air to exit. As a temporary measure while we had mains power, we opened the cupboard and pointed a mains-driven fan at the compressor to help cool it down.

I knew from my previous work that computers have nice, quiet, 12V cooling fans in them, so I decided to source one to pull air into the cupboard to help cool the compressor. I managed to find an 80mm one that fitted nicely across the hole in the bottom of the cupboard. These fans have arrow markings on them to indicate the direction of airflow.

I took the existing fan off the back of the condenser, cleaned the accumulated dust off the blades and condenser and also removed the existing stainless steel louvred plate off the exit hole to make it easier for hot air to exit the cupboard. I then spliced the wires of the new fan into the existing fan wires, removed the blanking plate and screwed the new fan in place. When the cooling fan was running, so was the extra cooling fan.

I fired it up, and the difference in performance was very noticeable: I was able to turn the fridge down a notch and got it cycling at 5°C in the box with not too much running time!

The fan cost €6 (£4.25) in the local computer shop in Faro, and was easy to fit. The air blowing in from the bottom of the boat was cool because it was in contact with the water-cooled hull and was deflected up to the condenser by the waste bin. Cool air equals a cool condenser, which equals an efficient fridge!

ONWARDS AND UPWARDS

Last spring, I bought Anne Marie – a 1977 Stratimer-built Endurance 35 ashore at Rye. On the outside she looks OK-ish, but on the inside things are different. I reckon to have her back in the water in June 2017, and I thought I'd write in to demonstrate a novel way of gaining access for the repairs as I really did not fancy climbing up and down ladders for two years.

Near to where I live in Tenterden, Kent is Symonds Salvage, which specialises in house salvage and is a great place for a wander. I was looking for some quarry tiles the other day when I espied an old wooden staircase: a reasonable price was negotiated, and within a week I had a very practical and easy-to-use means of access onto my boat. It's amazing what you find when you are not looking.



I am writing about the renovation in a blog, <https://savingannemarie.wordpress.com/tag/anne-marie> – so if any readers want to follow my progress or indeed offer advice, all they have to do is follow the link.

Mike Stephens

Without a leg to stand on

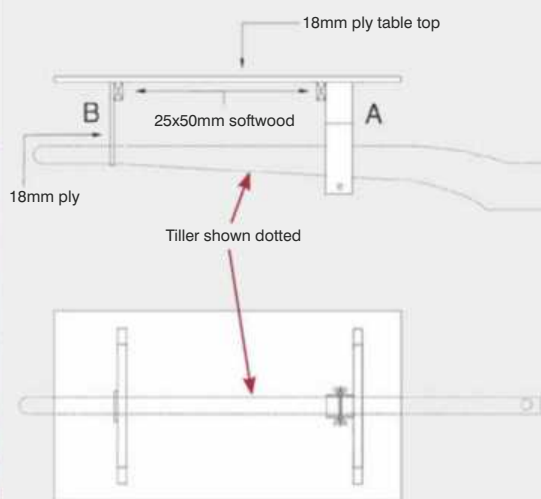
At last: a practical justification for getting legless. Peter Eade demonstrates the simple but ingenious adaptation which enabled him to remove the obtrusive legs from his tiller table

COST
AROUND
£20

Here is a detailed drawing and photo of the much-used tiller table on our Kelt 9M. It started out with legs, but we found they got in the way when seating four people. By fitting brackets to the underside of the table top it fits nicely onto the tiller and is clamped into position: the tiller is centralised with a Tiller Tamer.

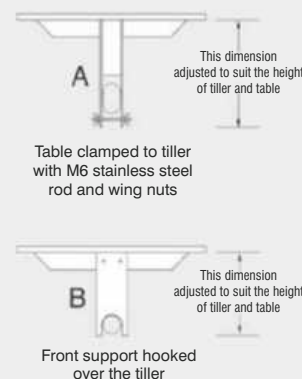


Peter's tiller table



MATERIALS:

18mm WBP plywood
25x50 PAR softwood
M6 stainless steel threaded rod
M6 washers and wing nuts
Brass wood screws



Readers' Tips

WHEELIE IMAGINATIVE WINTER STORAGE

In the winter your boat's cabin is filled with fenders, anchors, ropes, the outboard motor and other items that are out on deck in summer. If, in the course of winter maintenance, you want to go into a locker to look for a tool, you have to move all the gear – then you'll want a spare part which is inevitably in a locker under all the gear that has just been moved.

The obvious solution is to take all the gear off the boat; but then, where do we store it? My first thought was to buy a garden shed, but that costs money. The next idea was to use one of those large plastic boxes you see in garden centres. They also cost money, but I realised I already had a plastic storage bin in the garden – a wheelie bin which collects biodegradable recyclable material. The hedge trimmings and grass cuttings go in during the summer, but by September this job is done so the bin is redundant all winter.



When the boat comes out the water in October, all the fenders, ropes, outboard motor etc can be stored in the wheelie bin. When the spring comes, all the gear goes back on the boat. The fender storage unit can then revert to being a garden waste bin. If there is insufficient volume, your neighbours will also have redundant wheelie bins which

they might be glad to get away from their door for the winter.

This is multiple recycling. The contents are recycled in the summer and the use of the bins recycled in the winter, and no trees need to be chopped down to build a garden shed. This is not only free, but is also environmentally friendly.

Nic Cameron

TAKING THE AIR

This is a very simple and cheap way to keep the bedding aired. These cushions have a fabric back so moisture can get to the plywood under the bunk, but you can keep them away from the wood by placing empty water bottles



between them. (Sadly, some cushions have vinyl backing, which means the moisture stays in the cushion. Yuck!)

Andy Nelson

How lifejackets are made and tested

As 2016 marks a golden anniversary year for SeaSafe Systems Ltd, Laura Hodgetts goes behind the scenes at the independent British company's factory

Imagine a time when lifejacket fabric was cut out by hand and stitched together using manual sewing machines: fast-forward 50 years, and it still is! SeaSafe Systems Ltd's marine safety product range has ballooned from inflatable coats for marine pilots to lifejackets and man overboard recovery equipment. Now celebrating its golden anniversary year, the independent manufacturer on the Isle of Wight, which has outgrown two premises in the last 50 years, hints at further expansion and shares insight into its processes.

Business development manager Wendy Willmott explains: 'We're quite a traditional manufacturer: some may say old-fashioned, but it works for us. If it ain't broken,

don't fix it. We do bulk manufacturing, but the average order for us may be four to five coats.

'We're not mass producers – we take great pride in our bespoke, one-off manufacturing for individual customers.'

SeaSafe's bespoke designs have included a pilot jacket for a customer whose girth was wider than his height, plus fits for the petite and very tall. A 'build-a-coat' service on the SeaSafe website 'does what it says on the tin'. Another side of the business is bulk contract orders of lifejacket lungs for a variety of well-known companies.



SeaSafe was founded in 1966 by a Medway pilot, Captain Stanley Coe, who designed the first inflatable coat – a three-quarter-length black coat with a built-in, orally-inflated lifejacket. This Mariner design, which can still be found – labelled as Flintwear, the company that

SeaSafe became contracted to – was soon incorporated as standard safety equipment for Trinity House pilots. If a pilot goes overboard the entire coat inflates, with lifting beackets front and back.

Pilots may no longer be working under government control, but many still wear modern versions of the Mariner – Associated British Ports (ABP) is SeaSafe's largest commercial customer. Other big-name customers include the Maritime and Coastguard Agency and the Royal National Lifeboat Institution, which has the Hypohoist MOB recovery on all the new Shannon class lifeboats.

Many of the products SeaSafe sells today are 'an evolution of the original Mariner coat', with spin-offs including bomber jacket and gilet styles, some with mesh backs for hot locations such as New Caledonia. The removable covers of the i-Zip and Pro-Zip range of lifejackets, launched around six years ago, have enabled SeaSafe to offer an embroidery service without

damaging the lung, which is under a protective layer of fabric certificated to ISO12402.

Wendy said: 'We've done some absolutely stonking embroidery. People send us a jpeg of the design, we match up the colours and the sewing machine does the work. Digitising a logo has a one-off charge, and if the customer comes back in the future they don't pay a digitising charge for that design.'

A common request is 'his and hers' lifejacket embroidery, such as 'John and Sue', along with the boat name: 'We do that very, very regularly', says Wendy. 'Embroidery also helps to give corporate identity, and when lifejackets are numbered and allocated it cuts down on theft.'

Wendy said: 'It's been a real evolution, and we experiment all the time with new colours. The Union Jack print we brought out in 2012 for the Diamond Jubilee year is still extremely popular, especially with the resurgence of UK-made products. Selva Marine recently asked if we could do the



Managing director Jeremy Dale and general manager Keith Friar wear SeaSafe's latest Mariner coats and hold up the original model





Italian flag, and this lifejacket design was displayed at the Southampton Boat Show. We're currently playing around with a really amazing tweed with gold embroidery, and also tartan. We need less than a metre of material for each lifejacket cover.'

SeaSafe's 'celebrity stuff' has included lifejackets for a Status Quo concert at Cowes when the band wore leather and black suede lifejackets – one with a skull and crossbones. Jane McDonald from *Loose Women* wore a leopard-print lifejacket for the Queen's Jubilee Pageant and, at ABP Barrow, Matt Baker from *Countryfile* was filmed wearing a fluorescent orange lifejacket, embroidered with Number 1.

Over the years, lifejacket comfort has improved with soft foam and quilting around the back of the neck, plus accessories such as lights and personal locator beacons (PLBs). More colours have been brought in, and the quality control has risen from British to European standards.



The £80,000 cutting machine has 'saved Ken the cutter's back'



The cutting machine computer

Ken 'the cutter' Eldridge



Machinist Chris Russell at work



Rod Young has worked for the company for 22-and-a-half years, 'and I was old when I got here'. Now 75, he is the oldest member of staff. His original job was sealing the seams: he gradually learnt about machining, and went on from there

How lifejackets are made

Managing director Jeremy Dale said: 'We first produce the rear section of the lifejacket: all of the webbing is sewn in the approved position. Next we fit the lifejacket lung: this is sewn onto the attachment points fitted in place on the inside of the rear section.'

'We then produce the front panel, which could have a multitude of different colours and embroidery upon it. We fit the zips, then we are ready to install the firing head, CO₂ bottle and any optional extras that the customer may have ordered, then the front panel is zipped onto the rear panel.'

'Finally we fold and pack the lifejacket correctly and then it is ready to be sent to the customer. Everything goes through various inspections until a final inspection

prior to packing and dispatch.'

Traditionally, and today to a great degree, all the material is cut by hand. Until 18 months ago, lifejacket lungs at SeaSafe were also cut by hand, a physical job that involved bashing holes into the material using a metal cutting tube and hammer. An £80,000 cutting machine has now 'saved Ken the cutter's back', and although it's not quite as fast as his experienced by-hand cutting, it's much easier – and the holes are '100 per cent neater'.

Ken Eldridge, from Ventnor, said: 'Time is of the essence: everything has to be cut before it can go to the machinists or the welding room. If I'm off for a fortnight everything grinds to a halt. It's all about the cutting, really.'

The cutting machine has a three-step process: Material is

placed under a camera and photographed, and this information is sent to a computer which then operates the cutting machine. A blade, rather than a laser, cuts the holes in the lifejacket lungs.

Wendy said: 'All the coat patterns will go on the computer, but as we're a bespoke manufacturer that's where it works against us: if a customer wants shorter sleeves and it has to be cut down from a pre-cut design, that creates waste. It's not an easy solution.'

She continued: 'The cutting machine was a serious investment for us. At the moment it does all the lifejacket lungs and contract work, which is our bread and butter.'

Managing director Jeremy Dale said: 'We make 35,000 to 40,000 lungs a year. We've got the capacity to do over 1,000 a week. We sell 2,000 to 3,000 a year of



All lifejacket lungs are inflated for 12 hours during the servicing

our own lifejackets and about 1,500 bespoke coats, plus many individual orders of between one and 30 items.'

Once cut, the two halves of the lung are welded together. The original lungs for the Mariner coat were glued together by hand, but now it's fusion welding, where two brass shapes are placed above and below the lungs, which are heated to melt the fabric together.

At least one in every 90 lungs is tested to destruction with a double inflation. Wendy said: 'Everything has to be quality-checked and everything has a serial number and bar code, because if we ever have to isolate faulty material we need to know which serial numbers to isolate. The lifejacket lungs are inflated for 12 hours, and we had a situation in the past

where they were just exploding: really loud, it was! That was a faulty batch of material, but it's better that we find out here than have it happen out in the big wide world.'

There's also a double bottle test where the lungs are inflated with one gas bottle and then another. Wendy said: 'All our lifejackets are 150N but they're manufactured to a tested buoyancy of 170N.'

After the lifejacket and coat material is cut by hand, it's stitched together by machinists such as Chris Russell, who laughed at the idea people might think lifejackets are entirely machine-made, saying: 'It takes a lot of experience to put it all together. It's become far more complicated over the years, with more technical parts coming along.'

Jeremy added: 'We have signs around the factory saying "fit, form,



SeaSafe service manager Matt Barry with the collection point boxes

function": nothing should get changed in any system without being signed off, but if suspicions are raised they should ask. We have various disciplines throughout the whole business, but for that we're all human. However, making mistakes is a little bit different if you're making lifejackets.'

Easy servicing

There are 50 SeaSafe lifejacket service points around the UK, primarily chandlers and marinas – and the company is looking for more. Customers drop lifejackets

off into the blue collection boxes, and the service points call SeaSafe to arrange carriage. Once the lifejackets have been collected and serviced, SeaSafe then contacts the customers to organise payment and sends the lifejacket back to the service point.

Wendy said: 'If customers use the service points they don't pay any carriage, just for the servicing and parts from £9.95.' She added: 'A lot of marinas are signing up: they get a small amount of commission, maybe earning about £50 or £60 they wouldn't

SeaSafe's Golden history – 50 years of production

SeaSafe's sales office was originally based in Chatham Dockyard and its manufacturing facility was based on the Isle of Wight, but now the entire company is based on the island. 'Everything is designed here, manufactured here and marketed from here. I've had the company for 25 years,' says Jeremy.

'One of our plans for our golden anniversary year is to educate the public about what we do. As a bespoke manufacturer we can accommodate small or large orders, it doesn't have to be all commercial. We were the first, as far as we're aware, to change covers.'

SeaSafe also claims to have had one of the first lifejackets to

qualify under the new 12402 regulation system. The lifejacket range includes fireproof fabric for service welders, while the MOB recovery range includes the award-winning Hypo Hoist, which raises a casualty horizontally. The Hypo Hoist was designed by 17-year-old student Tanya Budd as an A-level project. Jeremy said:

'Tanya couldn't find anyone to manufacture it. We helped her and helped with the final design. We paid her a commission and then she wanted to be bought out, so now it's a SeaSafe product through and through. 'From that we designed the RIB hoist, a way of doing very

simple recovery one-on-one, and the Quiksling – all made in-house. You can throw the Quiksling quite a long way very easily. It's best suited to commercial vessels, although you could also use a halyard on a yacht to hoist it back in. It

bespoke, as we did for a superyacht owned by well-known football manager.'

General manager Keith Friar joined SeaSafe when it was based in a shed in Wootton: 'When the high tide came in we had to move all of the machines

up. It was a nice setting though, right by the water's edge.'

SeaSafe moved to larger premises in Birmingham Road in

1997, originally two single-storey shops merged into one. When the shops and local cinema were knocked down to make flats, SeaSafe moved out for a year-and-a-half to Spencer Thetis Wharf, returning in 2002 to Birmingham Road 'to a brand-new facility designed for us'.

We've been going for 50 years, so we must be doing something right. We're very passionate about our business'

comes with a solar light.'

Meanwhile, SeaSafe's Flectalon Rescue Blankets are popular with mountain rescue teams and crew on commercial vessels, who use them to wrap up casualties recovered from water. Jeremy added: 'It's a standard range but we can do



A rogue's gallery of rusty CO₂ bottles found during lifejacket servicing

have had otherwise, and it brings people into their chandleries.'

During the check-up, the lungs are inflated for a minimum of 12 hours. All items are washed with organic powder. Matt Barry, service manager, said: 'If the lung inflation fails we destroy them so there can't be any problems. If we just repackaged it and gave it back we would no doubt see it come in a year later.' He added: 'We've had a few lifejackets come in where they've obviously tinkered with it themselves: the bottles are loose, and if they'd gone in the sea there would be problems. There's nothing wrong with people servicing their own lifejackets if they know what they're doing. We're happy to provide training. If we get sent in a lifejacket

model we don't recognise, we take photos as we take them apart. If the lung seems to be slowly deflating we inflate it again and immerse in water, which normally brings to light any pin holes.' (A common cause of holes is small pin badges.)

The SeaSafe website has a 'rogue's gallery' of rusty CO₂ bottles found during lifejacket inspections. Jeremy said: 'It's common because some people don't open them up or service them for years. The bottles get rusty and that rust becomes jagged. Over time the jagged rust will puncture the lung. And you're relying on that to save your life. It's not ideal, is it?'

■ Find out more at www.seasafe.co.uk

Jeremy said: 'It was perfect at the time, but the business continued to grow. Also, there was no car parking. When we first moved here to Somerton Business Park 10 years ago, we went from 1,500 square feet to just under 10,000 square feet. We rattled around like a pea in a drum for the first year, and now as you can see we've run out of space. We came up here with seven staff, now we have 15.

'There are different parts of the business – sometimes one bit's up and the other's down. On the whole it's pretty good. Business is looking bright.

'We're in a reasonably comfortable position, but it has to keep growing. If it does keep growing we might have to look to expand into the empty factory next door.'

Wendy said: 'We've got things planned for 2016:

we've produced a catalogue for the first time in 20-odd years. Doggy lifejackets are something we need to look at in the future as we get so many calls for that. Another thing we're going to introduce is a children's lifejacket range for ages eight upwards. We've had some material samples, and some of our existing designs for young, funky adults would suit the teen range.

'We sponsor Natasha Lambert and did a lot of her clothing for her last charity challenge. That looked stunning – black on pink. If Natasha comes in everything has to be pink, it's non-negotiable.

'We've been going for 50 years, so we must be doing something right somewhere down the line. We're very passionate about our business.'



Every issue of the magazine...delivered to your home every month!

Subscribe today from just £18.99*



Save up to 36%



Subscribe online at magazinesdirect.com/CMR5



0330 333 4555 Quote code: CMR5
7 days a week from 8am to 9pm (UK time)

*When you pay by 6 monthly Direct Debit. Offer open to new subscribers only. Final closing date for all orders is 2nd February 2016. For full terms and conditions please visit www.magazinesdirect.com/terms.

Step back in time at the...



London Boat Show

8-17 January 2016, ExCeL, London Docklands

Visitors to the London Boat Show 2016 will be taken back to the swinging Sixties in a celebration of more than 50 years of boating.

Alongside today's cutting-edge technology, the 10-day event at ExCeL London (Friday 8 January to Sunday 17 January) will showcase the innovations of the 1960s, an era which saw the first man walk on the moon, The Beatles, the arrival of the Mirror dinghy and Sir Francis Chichester becoming the first person to sail single-handed around the world.

Many exhibitors will embrace the retro theme, with Princess Yachts exhibiting their Project 31@50 boat – a refurbished version of the company's original boat design.

In addition to the '60s revival, new attractions will include the London Boat Show Theatre, a dedicated stage for stars and experts from the sailing world, including show exhibitors. Visitors can expect interactive talks and panel shows, and topics ranging from technology to engine maintenance and around-the-world expeditions.

Special guests are likely to include the Land Rover Ben Ainslie Racing team's designers and engineers, the British challenger for the America's Cup. Sir Ben is also expected to attend, as is Sir Robin Knox-Johnston, who will join the Royal Yachting Association team at

stand D007 on Wednesday, 13 January to present the 2015 RYA Yachtmaster of the Year award. RYA cruising, legal and Government affairs experts will also be on hand to answer questions throughout the show. You can also find out more about the ARC Channel Islands rally, run in conjunction with RYA Active Marinas and with the support of Hamble School of Yachting and PBO.

Also new is the 500,000lt 'Mediterranean Bay' pool, surrounded by faux villas and cafes, where sailors can test boating skills with seminars on close-quarters boat handling, sail reefing and capsizing drills. Visitors

will be invited to try an array of watersports, from water-walking, canoeing and kayaking to the Seabob underwater scooter, and to find out more about yacht charter and flotilla holidays and sailing courses with exhibitors such as Sunsail and Rockley Watersports.

More than 300 marine brands have so far signed up to showcase thousands of products, services and boats at the show, which is the size of six full-sized football pitches.

Last year the show was given an image shake-up by students from Central Saint Martins University of the Arts, introducing a weather theme with a rain-shower entrance and 4D cinema of sea states, and

the British Marine organisers hope the renewed optimism will continue.

London's 400-year-old Arthur Beale chandlery is exhibiting for the first time in about 50 years. Arthur Beale was a founder member of the Small Boat Builders National Federation, responsible for putting on the very first London Boat Show at Olympia in 1953.

Tickets

Advance midweek tickets start from £10, with two children under the age of 15 going free with each adult. Use the EX12 discount code to get weekend tickets for £12.50 instead of £20 before the deadline of midnight on 7 January 2016.

■ Visit www.londonboatshow.com or call 0844 776 7766.

**Great PBO
subscription
offers on
stand C162**

**WIN
THIS
BOAT!**



...Your last chance to win the PBO Project Boat!

PBO Project Boat *Hantu Biru* will be among the boats on display, and members of the public will be invited to enter the competition to win her – the last chance to see the fully-restored Snapdragon 23 before the prize draw deadline of 17 January. Find out more at the Time Inc stand C162, where we will also have great PBO subscription deals on offer.

Practical Boat Owner®

MONTHLY EXTRAS,
EXCLUSIVE TO SUBSCRIBERS

Rewards

M&S

EST. 1884

**FREE £5 e-card to
spend online and
instore at M&S***

Plus

**Exclusive stays with Hand Picked Hotels and
a FREE £20 drinks voucher**

HandPICKED
HOTELS
BUILT FOR PLEASURE

**Get a FREE Photo Desk
Calendar from PhotoBox
worth £16⁺**

photobox

**GIFTS
FOR HER**

**20% off Sanctuary
Bodycare, Skincare and
Gifts this Christmas**

FIND Your
SANCTUARY

WIN

**WIN one of five £200
One4all Gift Cards to
spend at over 22,000
outlets nationwide**

One4all
Gift Cards

**This month, be sure to log in to Rewards to access the above offers and you'll
find even more online – all EXCLUSIVE and FREE to magazine subscribers.**

**Redeem your rewards today at
pbo.co.uk/rewards**

*Limited to the first 3,000 Time Inc. (UK) Ltd subscribers. + Limited to the first 800 Time Inc. (UK) Ltd subscribers (p&p applies). In the event that we run out of the free Photobox photo desk calendar, you can enjoy 50% off desktop calendars. The Rewards scheme is available for all active print subscribers of magazines published by Time Inc. (UK) Ltd, free of charge. Closing dates apply to each partner offer. Please visit the Rewards website for more details. Full terms and conditions are available at mymagazinerewards.co.uk. For enquiries, contact rewards@quadrantsubs.com or call 0330 333 0233 between 9.30am to 17.30pm (GMT) Monday to Friday.

Readers' cruising destinations, near and far

We pay for your published cruising stories and harbour updates. Email pbo@timeinc.com or write to the address at the top of page 5

Canna Harbour



Steve Goldthorp

Canny Canna

Charmian Entwistle recommends a visit to the Isle of Canna, a handy stop-off en route to or from Skye or the Outer Hebrides, but also an alluring destination in its own right

Heading north from the spectacular Ardnamurchan Point, or south from the Point of Sleat, puts the charming group of islands known as the Small Isles at the top of your list as potential stopping-off places.

All the islands in the group are interesting and have their own attractions, but Canna's anchorage is the most sheltered and has moorings for visiting yachts. Options are divided on whether the moorings are a benefit, but it certainly gives the less confident sailor some assurance of a relaxing night when they are there.

ABOUT THE AUTHOR



Charmian Entwistle and her husband Mark run the Isle of Skye Yachts charter company. Charmian is also a director of Sail Scotland.

The harbour at Canna lies between Canna and the tidal island of Sanday. Approaching from most directions takes you close to the island of Rum, which is easily visible in fine weather because of its spectacular Cuillin.

Unless you are approaching from the west you will also have a view of the isle of Eigg with its magnificent Sgurr, which changes shape continuously as you sail past. Once you are into the Sound of Canna, some careful navigation is required to get into the harbour past the Sgeir a Phuirt reef. There is still space for anchoring if you prefer – or if you arrive to find the moorings are already taken.

The moorings are likely to be busy in midsummer, so plan to arrive reasonably early if you are keen to pick one up. When planning a passage to Canna and the other Small Isles, although they are delightful in good weather, you always need to plan your passage carefully and keep in mind the remoteness of the area. Once you

are securely moored or anchored, a walk ashore is essential to experience the island's delights and its friendly welcome. It will also enable you to put the £10 mooring fee in the honesty box.

For a small island with a population of around 20 people (including the neighbouring island of Sanday), Canna has a lot to offer to various visitor tastes. From

a historical point of view there are three church buildings to look at; Canna House, with opening hours limited to Wednesdays and Saturdays, although walkers can access the walled gardens at any time; and the Old Laundry at the farm, which is open all the time and which houses a small museum giving the history of the island.

There are several walks between



Enjoying a beer outside Café Canna



Isle of Skye Yachts

St Edward's Church on Sanday



David Holmes

Puffins abound on Canna



Canna's 'cursing stone'

Canna and Sanday to appeal to all tastes, and specialist rock climbing can be undertaken if you have suitable equipment. For a moderate walk to build up an appetite for dinner at the café, a stroll up to the Celtic cross and the 'cursing stone' give a stunning view out to the sentinel of the Stevenson-designed Hyskeir Light standing only a few miles away.

Well worth a visit

If you are staying for the night do try to reserve a table at Café Canna, which is open for lunch and dinner and offers a variety of delicacies including lobster when available. Rabbit often features on the menu, which makes a tasty change. There isn't a food shop on the island, but there is a small community shop on the ferry pier which offers tea and coffee on a self-service basis plus a selection of local produce and crafts.

Although you could spend two or three days enjoying this beautiful island and the anchorage, the chances are you'd be there because you were going on somewhere else, and Canna makes a wonderful central location

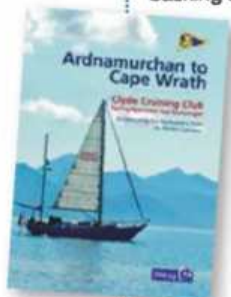
for stopping at en route to or from Skye or the Outer Hebrides, where there are now pontoon facilities at Lochboisdale and Lochmaddy. The other Small Isles – Rum, Muck and Eigg – are also all well worth a visit if time permits, and each has very separate charms to offer.

Canna is renowned for its bird life, including sea eagles, golden eagles and puffins. Recently, peregrine falcons and merlins have also been sighted in the area. In the waters around the area, dolphins are a common sight, with minke whales and basking sharks (in season)

regularly reported around the island.

Sometimes described as 'the garden of the Hebrides' because of its fertile soil, Canna is an island with many interesting features. Full navigation details can be found in the Clyde Cruising Club pilot book *Ardnarmurchan to Cape Wrath* and in the Admiralty Chart folio 5616, Point of Ardnarmurchan to Shiant Islands. Other useful information can also be found at

www.theisleofcanna.com, www.cafecanna.co.uk and www.welcome-anchorage.co.uk/view-publication.



Free anchorage!

Puilladobhrain, Scotland



www.mccubbin.ca

Pronounced 'Pulldoran' and meaning 'otter's pool' in Gaelic, this popular anchorage is well sheltered and close to Oban, as well as to Craobh and Ardfern marinas.

The Sailing Directions claim the bottom is black mud, which has caused several boats to drag their anchors – so a long length of chain is advised if there is a gale. There are breathtaking views from the nearby hill on a clear day, and in early spring the surrounding banks are awash with primroses and bluebells.

The cruising website www.scottishanchors.co.uk strongly recommends making the 10-minute walk along a track to Clachan Seil, to see the so-called Bridge over the Atlantic



(in truth, over Clachan Sound) and visit the excellent 18th century Tigh an Truigh pub, whose name means 'House of the Trousers'. After the disastrous 1745 Jacobite rebellion kilts were banned by the victorious English, so the islanders heading for the mainland are said to have stopped off here to change from their kilts into trousers.



Tigh an Truigh – 'House of the Trousers' – has an interesting history

Send in your free anchorages and win a pack of PBO playing cards for published suggestions

Email pbo@timeinc.com or write to the address at the top of page 5

Call 01202 440832 to order our playing cards, with 54 top spots: just £4.99+P&P



Woodrolfe Brokerage

Tollesbury Marina



Hanse 411, 2015, fin, superb 3 cabin version! Here £75000



Catfisher 28 Catamaran, 1977, project boat needing some restoration, Here £20,000



Etap 30, 1990, fin, wheel steering, bow thruster, 27hp Volvo, Sussex £19,950



Westerly Berwick 31, professionally restored, re-spray 2015, just lovely, Essex £16,950

Etap 38i	£55,000
Etap 32s	£43,500
Etap 32i	£27,500
Elan 31	£34,950
Hunter Channel 27	£28,500
Elan 210	£19,950

Westerly Konsort 29	£20,750
Catalina 30	£19,950
Kelt 850	£17,500
Moody 27	£16,500
Hustler 30	£8,500
Etap 20	£3,000

Hunters, Elans & Etaps needed!



www.woodrolfe.com

The Yacht Harbour, Tollesbury, Essex CM9 8SE Tel: 01621 868494

THE Barbican
YACHT AGENCY
EST. 1983



Sutton Harbour
Marina, Plymouth
01752 228855



Moody 31 MKII £33,950



Southerly 110, £109,950



Legend 36, 2006, £68,500



Feeling 1090 £37,950



Jen SO42 DS, £112,000



Bavaria 30, £39,950

- Jeanneau SO37 -	£54,950	- Beneteau First 47.7 -	£105,000
- Dufour 2800 -	£12,850	- Westerly Seahawk 34 -	£39,950
- Dufour 36 CC -	£72,500	- Saltram Saga 40 -	£49,950
- Van de Stadt Seal 38 -	£59,000	- Sovereign 32 -	£24,950

www.barbicanyachtagency.co.uk

BENETEAU DISTRIBUTORS AND YACHT BROKERS

FOX'S
YACHT SALES



FISHER 25

Length: 25.3ft Year: 1994 £36,000



BOWMAN STARLIGHT 35

Length: 35ft Year: 1999 £75,000



BENETEAU OCEANIS 34

Length: 34ft Year: 2009 £53,500



BENETEAU OCEANIS 393

Length: 38.8ft Year: 2001 £62,950

VISIT FOX'S YACHT SALES ON THE BENETEAU STAND AT LONDON BOAT SHOW
8-17 January 2016, London Excel, Royal Victoria Dock, London, E16 1XL



MOODY 422

Length: 40.6ft Year: 1988 £66,000



OYSTER 435

Length: 43.5ft Year: 1990 £125,000



BENETEAU OCEANIS 36CC

Length: 36.5ft Year: 1998 £59,950



BENETEAU OCEANIS 42CC

Length: 43.41ft Year: 2004 £99,500

FOX'S MARINA WHERSTEAD IPSWICH SUFFOLK IP2 8NJ t: +44 (0)1473 694 694 e: info@foxsyachts.co.uk

www.foxsyachts.co.uk

CRAFT FOR SALE



Westerly Fulmar 32ft 1990

32ft 1990. ³Quartet² Fin keel. Sleeps 6 in comfort. Refurbished 2010, new mast, boom, standing rigging, running rigging, instruments (inc GPS, chart plotter, radar, Navtex and AIS receiver) 2 winches and upholstery throughout. Sails - main, genoa, No1 jib (furling) and cruising chute with stackpack/lazyjack for main. Volvo engine. In good order, ready to sail, no headlining problems. Owner retiring from sailing so inventory can include charts, lifejackets, pilot books, crockery, binoculars etc. Pictures available. Lying Hayling Island, Hants. **Price £30,000 ono** Contact: Richard Foreman

HAWK 20 DAY BOAT
SAIL 101 ALL IN REALLY VERY GOOD CONDITION.
NEW MAIN, UV STRIP ON JIB, & little used Spinnaker &
GOOD ORIGINAL MAIN & SPINNAKER.

Outboard. Honda 5 HP (just serviced), with separate fuel tank.
Centre board factory refurbished 2014.
Self-righting construction ensuring dry sailor. Yachting Monthly -
"regarding the ROLLIS ROYCE of dayboats".



Dry sailed by current owner - (very easy to launch and recover).
Breakdown trailer 2004.
Full inventory, many extras. ILL HEALTHY horses sale
Professionally copper coated in 2008 with several years left.
Sailed most for 1000 miles plus.
FOR SALE £11995 onlv.
(current cost NEW this spec £30,000)
Tel 01327 349103 (Lying Rutland S.C.)
CONDITION IS EVERYTHING.

Beneteau First 21 I



Launched 2000. Two owners since new. Excellent condition,
based Ocean Village. Vectran Sails by Hood, Spinnaker,
Cruising Chute, Snuffer and ATN Tacker. Honda 5HP on
Teleflex control. Beneteau Mast lowering and raising kit
with Mast transit Crutch Full Inventory. Since 2011 follow-
ing replaced: Standing Rigging, Lifting Keel Pivot Bolt and L
brackets. New lazy jacks installed. Sails regularly laundered
and maintained by Doyle.

£12750 "Offers"

Telephone: 01489892884 Mobile: 07704421647
Email: daccm2@aol.com

Westerly Griffon MK2



Six berths built: 1985, bilge keels, brand new Vetus
engine costs £6,000 12 hours use since Septem-
ber 2015. Very smart boat, new upholstery, new
GPS map 550, new wind and speed instruments,
new tiller pilot, new sails, new spray hood, new
cockpit cushions, recent survey ashore Poole
exceptional value, must be sold quickly hence
only

£12,950

TEL: 01202 660150

Sadler 29



Twin keels. 1984. Running rigging, Harken furler,
mast lights and cables, wind instruments and
Sprayhood, all new Sep. 2015. New BUKH 24 2006.
DSC VHF, Plotter with AIS, Autohelm, Forgen,
Stripper. New cooker 2007. Carefully maintained
for 12 years of ownership. Ashore Exeter: 'Helen'
is a very good example of this popular and safe
family cruiser.' 2013 Survey

£21,500

Tel: 01395 578436

Email: c.j.flood@btinternet.com.

Hunter Legend 25



Hunter Legend 25 with launching trailer, July
2008 sleeps 6, little use, 9.8 Tohatus,
equipment compass, clipper wind system,
echo sounder, Garmin, satnav, wheel steering,
ideal for coastal cruising. Ideal for coastal
cruising. New engine fitted.

For more info YBW.com AD-006-TDP
Lying : Sheerness

£12,500

Email : BILLHOLLEY@LIVE.CO.UK

Tel: 01795661332 / 07960550274

Fisher Northeaster



1976. Very good order; Enlarged sail area.
Bowsprit. Cruising chute, recent Vetus 42
HP, repainting, bowthruster and life raft. Full
electronics, much enhanced interior layout:
Rear owner cabin with double berth and sink.
Enlarged kitchen and better sitting space in
wheelhouse etc...

£39,500 ashore Corsica

Tel: 0033(0)629461991

Email: rizzijacques@gmail.com

Cornish Shrimper No. 960



Mrs. Bear. Marina, Poole. Pastel Blue one lady owner.
Coppercoated new and 2015. Classic Interior
fitted galley dunlopillow berths. Yanmar engine
professionally serviced annually. fitted boarding
ladder, sprayhood. New tricolour masthead lights
and aerial, and many other extras. Good sails, and
sailcover. Darglow propeller. RM tiltback road
trailer. All v.g.c. Easy viewing and photos sent.

£24,000

Tel: 01258 452914 or 07792620848

Email: clevelly41@btinternet.com

Beneteau Oceanis Cli



A roomy 33 footer, this 3 cabin version
Oceanis 331 (2aft cabins) makes an
ideal family boat. With lift-keel and twin
rudders it is extremely versatile. An
exceptionally well presented exam

£58,500

Tel: 01743718844

email: alexfullerton@btconnect.com

BOATS FOR SALE. Buy in Greece
with confidence. British owner
operated brokerage. Quality Service.
Also bareboat yacht charter. Details
at www.pinnacleboatsales.com or
tel: 0030 6947 040767

RIGGING

LEATHER WHEEL COVERINGS

- For all wheel sizes and sprayhood grab rails
 - Leather Spinnaker pole covers
 - Handy Pull Tags to open Shackles
 - Suppliers of Marine Leathers to Sailmakers & Riggers
- Clyde Marine Leather**
www.clydemarineleather.com
Tel. 01418814558

UPHOLSTERY

UPHOLSTERY & SOFT FURNISHINGS

RE-UPHOLSTERY/NEW UPHOLSTERY
REMOVABLE WASHABLE SEAT COVERS
MATTRESSES MADE-TO-MEASURE

CBSCC ON TV
Watch our five
minutes of fame!
www.cbscc.co.uk/tv

MADE-TO-MEASURE CURTAINS
BEDDING MADE ANY SHAPE/SIZE
NEW HIGH DENSITY & MEMORY FOAM

Factory Showroom or Nationwide Collection & Delivery Service. Informative website.

The Caravan & Boat Seat Cover Centre Ltd, Cater Business Park, Bishopsworth, Bristol BS13 7TW
T: (0117) 941 0222 | WWW.CBSCC.CO.UK | E: info@cbscc.co.uk

WINDOWS SCREENS

WINDOWS • HATCHES • SCREENS • WASHBOARDS

PERSPEX • ACRYLIC • POLYCARBONATE - CUT PANELS OR SHEETS

FORMED • DRILLED • SHAPED - TO YOUR REQUIREMENTS

CLEAR • TINTED • MIRROR

NEXT DAY DELIVERY UK

SUNLIGHT PLASTICS LTD

Units 15 and 16, Aston Road, Waterlooville, Hants PO7 7XG

Website: www.sunlightplastics.co.uk Email: sales@sunlightplastics.co.uk

Tel: 02392 259500 • Fax: 02392 259400

TILLERS & RUDDERS

**TONY
MACKILLICAN
.CO.UK**

Rudders & Tillers made
to your requirements

Tel: 01785 284949

SPARS & RIGGING

SPARS AND RIGGING

SELDÉN

FURLEX

Z SPARS

SALES & SERVICE WORLDWIDE

CRUSADERSAILS.COM

Tel: +44 (0) 1202 670580

E-mail: info@crusadersails.com

LIGHTING

**ATEN
LIGHTING**

Full range of replacement LED
lamps and light fittings

01664 569457

www.atenlighting.co.uk

EQUIPMENT

Torqueedo Electric Motor

For Sale

3hp (1003s), all offers
invited

01697476904

jdavidoverton@icloud.com

SURVEYORS

Robert J. Perry, I.Eng.

AMIMarEST Marine Surveyor

South west marine surveyor I.Eng.

AMIMar.E, pre-purchase / insurance /
damage surveys.

Robert J Perry, Lyme Regis.

Tel: 01297 631314. Fax: 01297 631409

enquiries@robperrymarine.co.uk

SURVEYORS

Edward William

BOAT INSURANCE

Any Craft, Any Use, Any Age, Anywhere!

- Survey not normally required
- Any boat - any use
- Personal belongings
- Equipment cover
- No claims discount

Tel: 0870 850 4088

www.edwardwilliam.com

Edward William Marine Services are appointed on behalf of an E.U. fully authorised and regulated Insurer to offer quotations and arrange cover for Private and Pleasure marine insurance on their behalf. Insurers terms and conditions apply.

MORBIHAN YACHT SURVEY

English surveyor Brittany based
IIMS registered and qualified

Tel: +44(0)7408842287
Tel: +33(0)652840396
www.morbihan-yachtsurvey.com
info@morbihan-yachtsurvey.com

East Anglia Yacht Surveys

Dominic Buckley Assoc IIMS
Pre-purchase and insurance surveys
for GRP, wood and steel vessels.
Tel: 01603 717823 / 07981 247107
eays@btinternet.com
www.eastangliayachtsurveys.co.uk

MARINE ELECTRONICS

SeaRolf LED

Low power usage. Great light output. Many fittings.
Direct replacement G4 MR11 MR16 Festoon B22
Edison screw. Navigation and MORE.

www.searolf.com Tel. 01283 542718
CATALOGUES AVAILABLE

CREW WANTED

CrewSeekers International

THE ORIGINAL YACHT CREW AGENCY - ESTABLISHED 1991

We have a wide variety of exciting
crewing opportunities worldwide,
for amateur and professional sailors.

From daysailing to transocean.
All experience levels welcome.
Yacht owners register free.

Join online today at:
www.crewseekers.net

FITTING OUT

SHERATON MARINE CABINET

Gratings - Tables - Doors

THE YACHT TIDY or Cove Locker

Solid TEAK Panel with rear
container and fitting instructions

PRICE - £44.00 incl p/p & VAT.
www.sheratonmarinecabinet.com
Tel - 01993868275

SOLVE YOUR SEALING PROBLEMS

SEALS+DIRECT

Hatch and door seals • Window rubbers
• Rubber and PVC Fender • Edge trims
• Extrusions • Adhesives • Hoses,
Plus lots more

FREE fully illustrated catalogue.
Please visit our website or call
01425 617722

SealsDirect Ltd, Unit 6, Milton Business Centre, Wink, Drive,
New Milton, Hampshire B025 0R9
www.sealsdirect.co.uk

TRAILERS & TROLLEYS

LAUNCHING MADE EASY

Don't struggle with
restraining your boat
down the slipway.
A Front Towbar greatly
increases your man-
oeuvrability and
velocity.

- Clear view in front
- Detachable
- Strong
- Available for many vehicles

To fully appreciate the difference a
front towbar makes,
visit our website for a video demonstration.
www.watling-towbars.co.uk

For more information
call PAUL on: **01727 873661**
Watling Engineers Ltd

Practical Boat Owner

TRANSPORT

Saroli Transport

UK & European Boat transport.
Abnormal load specialist. General haulage.
Caravan transportation. Crane/lifting facilities.
Call Peter: 07768363411 Or Faye: 07779349753
Email: fayejinks@hotmail.co.uk

Based in South West

SQUIRREL MARINE

BOAT TRANSPORT BY SQUIRREL MARINE.....
WITH JIM BRETT'S EXPERTISE

Based in Kent, moving boats throughout the UK
Specialised personal service
www.squirrelmarine.com
Jason.Jengden@squirrelmarine.com
Jason 07446 821 333
calls taken until 10pm every day

PLANS

BOAT PLANS

Catalogue with almost
400 designs for the
home boat builder—
canoes, dinghies,
dayboats, yachts and
launches—now on a CD
as PDF files with many
colour photos
£7 + £2 p&p or
visit our web site at
www.selway-fisher.com

CONSTRUCTION MANUALS
Stitch & Tape Boat Construction
Strip Plank Boat Construction
Clinker Ply Boat Construction
Plywood Boat Construction for Larger Craft
• all manuals £18 + £4 P&P each

SELWAY FISHER DESIGN
15 King St, Melksham, SN12 6HB
Tel. 01225 705074

LIFERAFTS

LIFERAFT AND EPIRB HIRE

Send for our FREE
info pack and depot list
0800 243673
www.liferafts.com
info@liferafts.com
Fax: 01621 785934

LIFERAFT & DINGHY SERVICING

Liferaft House
Burnham-on-Crouch
Essex. CM0 8TE

THE WORLD'S LARGEST
DEDICATED LIFERAFT
HIRE COMPANY

INSURANCE

BASIC BOAT LIABILITY COMPANY
UK'S NUMBER 1 MARKET LEADER
IN BOAT LIABILITY INSURANCE

- THIRD PARTY LIABILITY • NO EXCESS •
- £5M LIABILITY • £50K WRECK REMOVAL •

03333 219 430
WWW.BASIC-BOAT.COM

THIS COMPANY IS PART OF HOWE MAXTED
GROUP LIMITED WHO ARE AUTHORISED
AND REGULATED BY THE FINANCIAL
CONDUCT AUTHORITY

Quality Low Cost Marine Insurance Quotation in 5 Clicks and 30 Seconds

insurance-4-boats
.co.uk

Our name says it all!
For quick, instant quotations and cover for all type of marine craft contact us on:

www.insurance-4-boats.co.uk Telephone: 01656 784866
Fax: 01656 784872 quotes@insurance-4-boats.co.uk

Insurance 4 boats.co.uk is a trading style of Portsmouth Insurance Consultants (PIC) Ltd.
PIC is authorised and regulated by the Financial Conduct Authority. All telephone calls are recorded.

BOAT SHARE

1/5 share in 40' Jeanneau
yacht based near Athens.
Fully equipped, very well
maintained, immaculate
condition including full set of
sails, dingy, outboard.
£13,500 phone 07432153516

Yacht Fractions Ltd (est.1991)
The Yacht share specialists.
Shares for sale used and new boats
New boats supplied for private or shared
ownership or Charter management
Bavaria, Beneteau, Jeanneau.
UK and Med.
www.yachtfractions.co.uk
01326 374435

BOAT SCREENS

SeaClear marine windows

renovation specialists

- boat hatches • windows • port lights •
- windscreens • washboards •
- cruisers • sports boats • yachts •

Mobile: 07761 882626 Office: 01622 205837
www.seaclear.co.uk • sales@seaclear.co.uk
Established workshop • Maidstone • Kent

We are based
in the SOUTH WEST
and supply replacement
BOAT WINDOWS
WASHBOARDS - HATCHES
vinyl pinsripes - boat names
contact us 01752 266599
info@nusignmarine.co.uk
www.nusignmarine.co.uk

PLASTIC BOAT WINDOWS

ACRYLIC • PERSPEX • POLYCARBONATE
CLEAR AND TINTED IN VARIOUS THICKNESSES
SCREENS • WASHBOARDS • HATCHES
WINDOWS AND INSTRUMENT PANELS
CUT TO SIZE AND SHAPE • DRILLED
REVELLED AND MOUNTING FACILITIES UP TO 300 x 200

QUICK TURNAROUND
www.projectplastics.co.uk

PROJECT PLASTICS LTD.
7 Green Way Business Park
Widmoreland, East Chelmsford, Essex
Tel: (01206) 840676 Fax: (01206) 793737
email: project.plastics@btinternet.com

CRADLES

THE JACOBS YACHT and boat
cradle LTD. All sizes and types of
craft catered for. Probably the best
designed and versatile cradle made.
Tel: 01394 448253. Fax: 01394
448408. Email
Forgejacobson@tinyworld.co.uk
www.jacobsonboatcradles.com
Alternatively send for a brochure. E.
Jacobs & Sons, The Forge, Kirton, Nr
Ipswich, Suffolk IP10 0NU

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

MARINE ENG & ANCILLIARY EQUIP



T. NORRIS LTD
MARINE EQUIPMENT
www.tnorrismarine.co.uk
Tel: 020 8560 3453 Fax: 020 8569 7446

6 Wood Lane, Isleworth, Middlesex. TW7 5ER

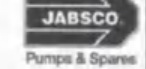
PROPELLERS	Fixed & Folding - Manufacture, repair & repitching - Steam engine propellers
SHAFTS	Stainless steel shafts made to order
STERN GEAR	Stuffing boxes - Cutless bearings - Epoxy tubes - Plummer blocks - 'P' Brackets - Deep Sea Seals - Gland packing - Remote greasers
GEARBOX SPARES & REPAIRS	P.R.M. - HURTH - BORG WARNER Hydraulic Steering - Flexible Drive plates - Impellers & Spares - Elastomuffin - Flexible Engine Mountings
OUR WORKSHOP	We have full workshop facilities for repair and manufacture to your requirements
EXHAUST SYSTEMS	Waterlocks - Goosenecks - Silencers - Exhaust Hoses - Hose Clips - Anti Siphon Vents
PIPE FITTINGS	Skin Fittings - Seacocks - Strainers - Valves - Hose Tails - Elbows - Tees - Plugs - Caps - Compression Fittings - Copper Pipe
ISO 7840	Fuel Lines - Fire Extinguishers & Blankets - Gas Hoses - Regulators - Fittings - Test Points
PUMPS	Engine Cooling - Bilge - Pressure Water System - Shower Drain - Sump Drain - Fuel Transfer



rule
Controls
Engine & Steering Controls & Cables



BOWMAN
Coolers & Heat Exchangers



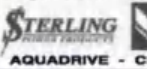
JABSCO
Pumps & Spares



Morse Controls
Engine & Steering Controls & Cables



WRECO
Refrigerators & Coolers



STERLING
Refrigerators



HMI



BUKH

AQUADRIE - CENTAFLEX - RAD

ALL PRODUCTS AVAILABLE FOR COLLECTION OR BY MAIL ORDER

MARINE ENGINES INBOARD



UK Distributors for
Nanni Diesel, Lofrans' & Max Power
and suppliers of a wide range of marine equipment



Come and see us on Stand C032






01603 714077
www.peachment.co.uk
Riverside Estate, Brundall, Norwich, NR13 5PL

London Boat Show
08 - 17 JAN 2016

SPARES



BETA MARINE
Genuine Parts

*Genuine **Beta** Reliability
Genuine Peace of Mind*





Tel: 01452 723492 • Email: spares@betamarine.co.uk

GLASSFIBRE & SHEATHING

01209 821028



FIBREGLOSS

COAT STRIP POLISH BOND PAINT CLEAN RENOVATE REINFORCE LAMINATE REPAIR

CFSNET.CO.UK

USE CODE PBO194 for **ONLINE OR TEL**

BOAT NAMES



SAC BOAT NAMES

www.sacboatnames.com
post@sacboatnames.com
01384 443744

Trade Enquiries Welcome

Names

Tapes

Decals

Canalia

Supplying Marine Graphics since 1988

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

MARINE ENGINES OUTBOARD

BETA MARINE

10 to 150 hp - 14 very smooth, multi-cylinder, heat exchanger cooled engines

We offer you the best, compact, reliable engines at very competitive prices!

Easy engine replacement, we can supply special engine feet designed to fit your boat

Engineered in the UK, at Beta Marine in Gloucestershire, we welcome your visit

Installation, buy through our dealer network for an installation package - see our website for dealer listings, or contact us

5 Year 'Self Service' Warranty

The Yachtman's Choice

www.betamarine.co.uk

Tel: 01452 723492 Email: sales@betamarine.co.uk



MARINAS

MARINA BERTHS

Package Deals Available

Example: 25ft boat: all craneage/power wash/three months ashore and annual mooring from

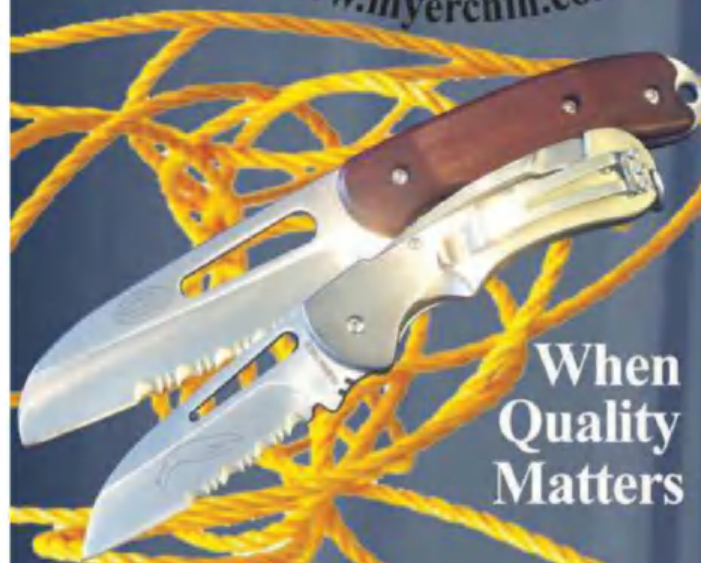
£1582.50 inc VAT



KEMPS QUAY

Contact Sarah on 023 8063 2323 or sarah@kempsquay.com

MARINE EQUIPMENT



When Quality Matters

01305 251971 sales@myerchin.co.uk

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

BOAT JUMBLES

Boat Jumbles West Midlands

Sunday 31st January
Three Counties Showground
Malvern WR13 6NW

All indoor event
Gates open 10am ** Adults £3.50
Children/parking free

Diary Dates 2016

Humberside (Carlton Towers)

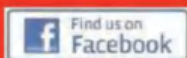
Sunday April 17th & Sunday September 25th

Devon (Newton Abbot Racecourse)

Saturday May 28th & Saturday September 10th

South Wales

Sunday October 16th



Bring a car boot of
nautical bits or a boat to sell for just £20
Call Compass Events 01803 835915
www.compassevents.co.uk

OSMOSIS

osmosis repair/protection MOBILE GEL COAT PEELING AND GRIT BLASTING.

Your drying out problems solved with our
**SUCCESSFUL SELF BUILD STEAM
 CLEANING KIT, INFO AVAILABLE.** No
 VAT. Diagnostic service and free advice
 for D.I.Y. Proven epoxy systems and
 expert assistance up to complete repair
 available with work record. LYMINGTON
 AND CHICHESTER BASED. For friendly
 advice covering all your gel coat prob-
 lems please call **Adrian on: 02380**
283135/ 07885 175 534 or **Jon**
(Chichester) on: 0754038 5366
www.advancedosmosis.co.uk
advostech@gmail.com
FULL REFITS undertaken with
undercover facilities Chichester.
Featured in PBO March 2012

South's leading osmosis centre



Using 5 HOTVAC machines to give
 faster, more efficient treatments
 Plus optional 5 year guarantee
 With full repair yard facilities also
 available

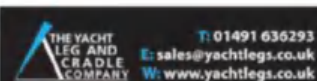
CALL 02392 463592
 or visit **www.haylingyacht.co.uk**

AIR CONDITIONING



Boat Mechanic required to join
 the operations team for our fleet
 of luxury hotel barges based in
 France and Scotland.
 Regular maintenance during the
 season (April to October) with
 winter refit programmes.
 Full time/permanent position
 based in France.
 Please apply with cv to
recruitment@gobarging.com

CRADLES



Yacht Cradles

- Galvanised steel
- Stackable
- Transportable
- Suitable for 22'-55'

Motorboat Stands

- Stackable stands for motor cruisers

Yacht Legs

- Stowable, telescopic aluminium
legs for motorboats/yachts

BERTHS MOORINGS & STORAGE

PONTOON BERTHS & SWINGING MOORINGS

CHICHESTER HARBOUR

2015

Tidal pontoon berths

£260.00 per metre per annum

Swinging moorings

£450 - £1045.00 per annum

From 1st April to 31 October

HAYLING YACHT CO LTD

TELEPHONE 02392 463592

EMAIL INFO@HAYLINGYACHT.CO.UK WEB HAYLINGYACHT.CO.UK

Deep Water Swinging Moorings

on **Yealm Estuary,**

Newton Ferrers,
near Plymouth.

For more info go to:
yealmmoorings.co.uk

WISBECH YACHT HARBOUR

Prime East coast location with inland
waterway access.

Town centre pontoon moorings - diesel,
electricity, water, showers, toilets, CCTV, 75
tonne travel hoist with 3 tonne crane for
mast, rig/de-rig. Secure hard standing, 120
tonne slipway facilities. Yacht club.

Telephone for brochure
01945588059

Email: afoster@fenland.gov.uk

Portsmouth Harbour Berths

Upper Quay, Fareham, Hants.
 Secure pontoon berths.
 Semi-tidal
 Pontoon access at all times
 Water & electricity
 From £38 per ft p.a.

Upper Quay Marine, 6 Upper Wharf
 Tel: 07973 690557 or 07712 189444
upperquaymarine1@gmail.com

BOAT DELIVERY



- UK, France
- Spain, Scandinavia
- Boats 20'-50' long

Tel: 07831 486710 (Mon-Sat).

www.boatttransport.co.uk

SEALAND BOAT DELIVERIES LTD

Nationwide, Continental, Worldwide
 for 40 years. No weight limit. 24hr
 Lancashire Ops room. Tel: 01254
 705225. **ros@poptel.org**
www.btx.co.uk

Quay Lane Boatyard in Historic Portsmouth Harbour

Annual Swing Moorings
 from £420 per annum
 starting April 1st.

Pontoon Berths £1.18 per
 foot per week.

Storage Ashore available.
 See Website for details.

www.quaylaneboatyard.co.uk
02392 524214



NO BOAT NEEDED

HOO NESS YACHT CLUB
 welcomes boat owners
 and NON boat owners to enjoy
 yacht sailing and crewing in the
 Medway and beyond

Call Steve today and see what benefits
 membership can give you.
07880 548804
www.hooness.org.uk



LAKE DISTRICT ULLSWATER

Swinging moorings available
 Contact Jennifer Little at Dalemmain Estate Office
 Tel: 01768 486450
 Email: **admin@dalemain.com**
www.dalemain.com

PERSONAL

Date-A-Sailor.com

**Whether you're Captain
 or Crew, bag yourself a
 New Shipmate Today!**

•Free to Look
•Easy to Join



Date-A-Sailor.com

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

MARINE ENGINE PROPELLERS



- SMOOTH PROPULSION WITH GREATLY REDUCED NOISE
- GREATER STOPPING POWER
- REDUCED VIBRATION
- HUGE REDUCTION IN 'PROP WALK' WITH ALL TYPES OF HULL/KEEL DESIGN
- DRAMATIC IMPROVEMENT IN REVERSE CONTROL
- SMOOTH PROPULSION INCREASING HELM RESPONSE AND VESSEL HANDLING THROUGH THE WATER
- IMPROVED MOTOR-SAILING PERFORMANCE
- PRECISE HANDLING IN SHALLOW WATER, MARINAS AND MOORING
- FUEL CONSUMPTION REDUCED BY UP TO 8%

TEL: +44 (0) 1832 730 457
WWW.AXIOMPROPELLERS.COM
INFO@AXIOMPROPELLERS.COM

 DEVELOPED AND PRODUCED FROM THE UNITED KINGDOM.

SPECIALISTS IN MARINE PROPULSION AND PROPELLER DESIGN.

AXIOM PROPELLERS LTD.

INSURANCE

Is your boat insurance due?

Then make sure you get a quote from us

Everything you need

One of the most comprehensive policies on the market.

Outstanding claims settlement

When it comes to claims settlement our reputation is second to none.

Incredible value

Our boat insurance costs less than you think.

For an instant quote and same day cover

0151 473 8000

Call Monday to Friday, 9am to 5.30pm

GJWDirect
The UK's Largest Direct Boat Insurer

gjwdirect.co.uk

Authorised and regulated by the Financial Conduct Authority

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

ACCESSORIES



ONLY £6.99
HANDMADE IN THE UK

BUY DIRECT FROM

BUNGEE SPONGEE **WWW.BUNGEE-SPONGEE.COM**

PROTECTED UNDER EUROPEAN COMMUNITY REGISTERED DESIGN NO. 002910678.0001
BUNGEE SPONGEE IS A REGISTERED TRADE MARK

PERSONAL



If you own a boat and need a hand, or help with ownership costs - You need a Boat Buddy.
If you would like to be involved, but don't own a boat - Then come aboard as a Boat Buddy.
Boat Owners and Boat Buddys Needed.
www.boatbuddys.co.uk

ANTI-FOULING

ANTIFOUL REMOVAL

Low pressure system, no damage to gel coat/epoxy. Grit blasting of keels available, gel peeling, osmosis treatments/repairs etc.

www.symbblast.com
Tel: 01202387289 or
07957 655978

SHUT YOUR TRAP

Catch lobsters, crabs, prawns etc in our folding traps & creels.

See the range at
www.interextrading.com or
www.yachtypots.com or
email info@interextrading.co.uk
Tel: 01254 703 516

COURSES & TUITION

Skills are for life

not just for Christmas



buy a gift voucher

www.boatbuildingacademy.com

ADVENTURE HOLIDAYS

OCEAN ELEMENTS



MARINE ENGINES

Spare parts for...

British Seagull

www.britishseagull.com
01491 652755

BOAT NAMES

Funky Monkey

funkymonkeyboatnames.com

Design online at your
One stop boatname shop
Boatnames, Hull graphics,
SSR Numbers & more
WE ARE INDUSTRY SUPPLIERS

Contact us | 01590 671974

RIGGING

RIGGING SPECIALISTS

40 Years experience using only
the finest quality materials

Standing Rigging

Including rollswaging to 26mm

Running Rigging

3-strand, Multi-plait, Braided

Contact us:

web: www.boatrigging.co.uk
tel: 0191 2661037

SELF STEERING

Nepthune Windvane

Servo Pendulum self
steering

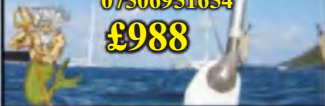
Efficient in light airs to
Storms. Use as Aux.
Rudder

Handles weather helm

www.windvane.co.uk

Ph. 44(0)1747870725,

07506951654

£988


Our Beach Clubs are located in stunning waterfront locations in Greece, offering the perfect summer holiday for families, couples and groups of friends.

SAVE £50 PER PERSON
USE CODE: **PBO15**

YACHTING & BEACH CLUB HOLIDAYS IN GREECE

- ✓ Beach front hotel
- ✓ Action and relaxation
- ✓ FREE Kids Clubs (4-12yr)
- ✓ Flights and transfers
- ✓ All water sports and activities
- ✓ Theme nights and excursions

Oceanelements.com

020 3393 5048

ABTA
ABTA No. Y3374

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

SAILING SCHOOLS



- Bare Boat & Skippered Charter
- Adventure Cruises
- RYA Training Centre

YACHT CHARTER



A fleet of Jeanneau Yachts from 29ft to 42ft • Explore our Coastal National Park & Islands • Gateway to the Gower Peninsula, Lundy, Padstow & Southern Ireland.



01646 602 500 info@pembrokehirecruising.co.uk
www.pembrokehirecruising.co.uk

YACHT CHARTER

Go beyond bareboating

Discover our fleet of luxury crewed charter yachts & take the next step in yachting holidays

Amazing yachts in amazing places



South of France, Corsica, Italy, Sardinia, Croatia, Greece & Turkey

CNB 60, 64, 76, 77, 86 - Jeanneau 57, 64 & MORE

01702 535258
www.diyachtcharter.co.uk
charter@diyachting.co.uk

SEE US AT THE

London Boat Show
08 -17 JAN 2016

Stand G-013



Solent Based Sailing School
COMMODORE YACHTING
RYA Theory and Practical courses • Solent Charter
London Boat Show Stand F016
Competent Crew • Day Skipper • Yachtmaster • Boat Handling
Milebuilding • Own Boat Tuition • Online Theory
www.commodore-yachting.com
Tel: 02392 504443 info@commodore-yachting.com

HOYLAKES SAILING SCHOOL
MERSEYSIDE
5 DAYS OR 2 WEEKEND THEORY COURSES
Dayskipper • Coastal Skipper
Yachtmaster Offshore •
Yachtmaster Ocean
STCW Master <200gt
ONE DAY COURSES
Diesel Engine • VHF • Radar
First Aid • Sea Survival
www.sailorsworld.co.uk
MARINE HOUSE, 86A MARKET STREET,
HOYLAKES, WIRRAL, MERSEYSIDE CH47 3BD
0151 632 4664
reception@hss.ac.uk

Weston Bay Yacht Club
Cruise the Bristol Channel or relax in our refurbished clubhouse near Weston super Mare. Member's moorings on River Axe available - £190 pa (including membership)
Visit our website:
www.wbyc.co.uk
info@wbyc.co.uk

YACHTMASTER OCEAN INSTRUCTOR
AVAILABLE FOR TEACHING
ALL RYA COMPETENCES
All levels of navigational theory taught
Boat deliveries, own boat tuition, experience cruises, both on sailing yachts and motor cruisers, organised.
All RYA practical courses covered.
STICKY STAPLTON
instructor@sail-help.co.uk
www.sail-help.co.uk

Practical Boat Owner

See us at the London Boat Show stand C008
SEAFARER
CRUISING & SAILING HOLIDAYS
FLOTILLA SAILING
BEACH CLUB HOLIDAYS
& YACHT CHARTER
GREECE • TURKEY • CROATIA • CARIBBEAN
TOP QUALITY - BEST PRICES
www.seafarersailing.co.uk
0800 496 4670

To advertise call the credit card hotline: FREEPHONE 0800 783 9683

Discover a world of sailing with Kiriacoulis



First for sailing holidays in the Mediterranean.
The finest yacht charters at the best value for money.

Charter in Greece, France, Turkey, Italy, Malta, Croatia or the Caribbean.

MAIN UK AGENTS
Nautilus Yachting

The Watermill,
87 High Street,
Edenbridge,
Kent
TN8 5AU
t: 01732 867445
e: charter@nautilusyachting.com
www.nautilusyachting.com

London 08
Boat ~17
Show JAN
Stand 2016
D011

Tenrag Yacht Charters Ltd
Tenrag House,
Preston, nr. Canterbury
CT3 1EB
t: 01227 721874
e: info@tenrag.com
www.tenrag.com



www.kiriacoulis.com

DRASCOMBE LUGGER SAILING IN THE GREEK IONIAN

Day sail in the sun these "iconic" Drascombe Luggers based at **THE GENI GARDEN APARTMENTS**, our superb waters edge base and explore the wonderful harbours and coves of Meganissi.

Early booking discounts for Lugger / Apartment packages now available
www.dragondrascombe.com



Nautilus Yachting

WORLDWIDE
BAREBOAT
AND FLOTILLA
HOLIDAYS

sailing holidays
your way

London 08
Boat ~17
Show JAN
Stand 2016
D011



Great yachts at the best prices throughout the Mediterranean and the Caribbean

Friendly flotillas in Greece, Turkey and Croatia



call 01732 867445 | www.nautilusyachting.com

GREECE | CROATIA | TURKEY | FRANCE | MAJORCA | ITALY | ANTIGUA
BRITISH VIRGIN ISLANDS | GRENADINES | SEYCHELLES | THAILAND

Bob's Yachts

Bareboat & Flotilla Sailing from Corfu in the Ionians

Feel at home aboard one of our Sun Odyssey's 32'-49'. Our high standards and personal touches gained from experience over the last 25 years, will ensure you are

"A cut above the rest"

Please visit our website

www.bobsyachts.gr or
Email us at: boblitsa@otenet.gr
or call us on:

FREephone 0800 011 2940
Tel/Fax: 0030 2661 094104

ENGINE PROPELLERS

OVER 2000 PROPELLERS

IN STOCK

- 2 & 3 Blade
- Alloy & Bronze
- Fixed & Folding
- Shafts & Seals
- Prop Protector
- Rope Cutter

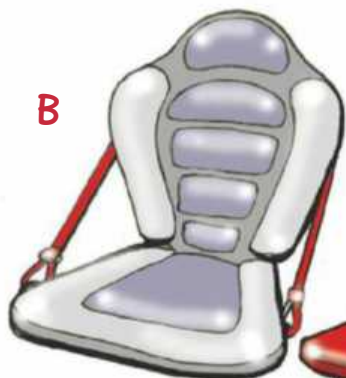
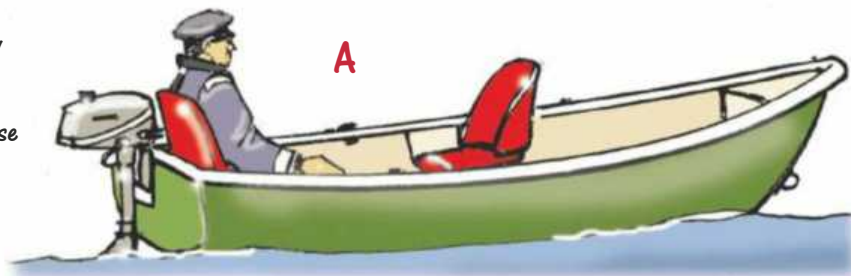


SILLETTE MARINE PROPPELLER
sales@sillette.co.uk www.sillette.co.uk
020 8337 7543

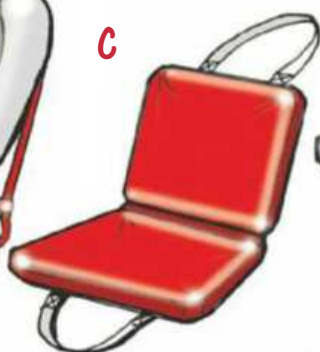
To advertise call the credit card hotline: **FREephone 0800 783 9683**

Supporting your back for comfortable boating

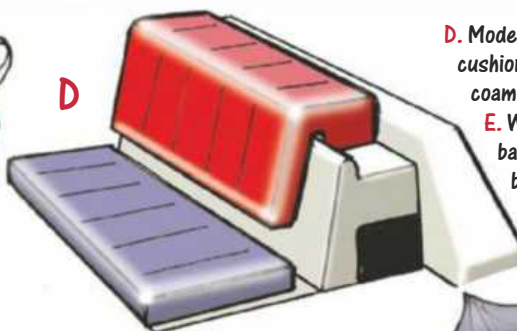
A. The other day I saw an elderly yachtsman, looking extremely comfortable in a small dinghy because he had rigged it up with a couple of seats with back supports. They looked like simple plastic canteen chairs fixed to the normal thwarts. But of course anglers have been using comfortable seating in small boats for years, as they often spend a long time in one place.



B. Modern plastic kayak seats are relatively cheap, padded and self-supporting once their straps are hooked on to something solid.

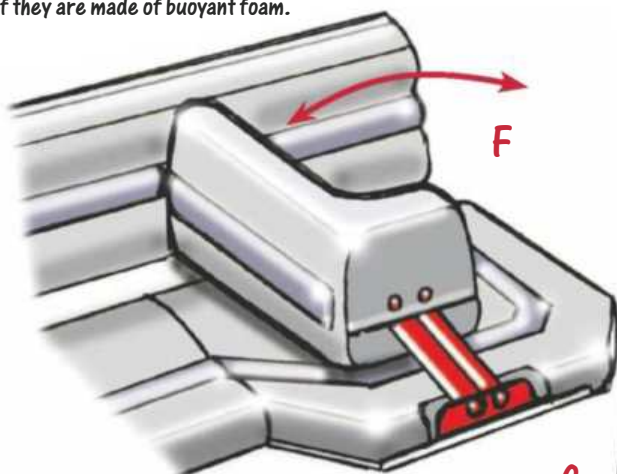


C. If sailing a long way, normal cockpit cushions are essential to protect your bottom. But this type also pad your back and can be thrown to a MOB, if they are made of buoyant foam.



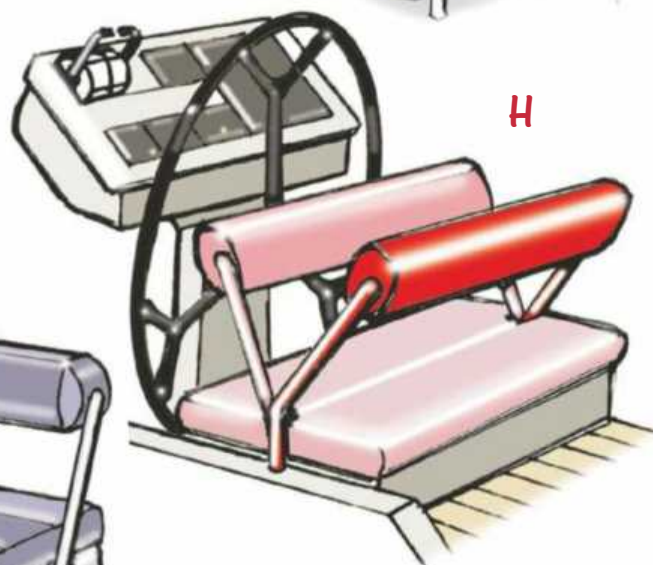
D. Modern cockpit layouts can have back cushions that hook over part of the coaming to let you sit out more.

E. Weatherproof, outdoor bean bags are finding their way on to boats to form extremely large and comfortable backrests.



F. Many motor-sailers have flip-over seats in the wheelhouse that can either hold the helmsman in place or form a comfortable settee armrest when in harbour.

G. Flip-over backrests are also handy in smaller boats, as they are a good use of space. This one is mounted on a useful storage locker.



H. This big boat had twin steering positions with a large double seat at each helm. These could be converted by moving the backrests around, so the occupants could then socialise with people swimming off the stern, fish off the back or even keep a lookout astern at sea!

Original Boat Owner's Sketchbook volumes 1 to 5 are now available to download from www.pbo.co.uk/sketchbook priced at £4.95 each. A limited number of printed volumes 3, 4 and 5 of the original Sketchbook series are still available from the PBO Editorial office priced at £3.75 each, or all three for £10. Order yours by calling tel: 01202 440830 or email: pbo@timeinc.com

PUZZLE SOLUTION: A, D, H

FURL MAXX PLUS™ MAINSAIL

A NEW GENERATION OF IN-MAST FURLING MAINSAILS

London
Boat
Show
08
~17
JAN
2016

SEE OUR DEMO
ON STAND
E046



CRUSADER SAILS' fresh approach to the in-mast reefing mainsail combines a subtle blend of tried and tested high tech woven sailcloth, ultra lightweight carbon fibre sail battens and state of the art computer design to provide a smoothly rolling, high performance mainsail.

- Fully moulded sail shape
- Extra power from **MAXX** roach area
- **Vektron™** sailcloth by **CHALLENGE SAILCLOTH**
- Ultra small and lightweight carbon fibre sail battens
- Greatly improved twist control
- Improved speed and pointing ability
- Low maintenance Kevlar reinforced batten pockets
- Unbreakable stainless steel end caps
- High quality ball bearing clew block
- Triple or quadruple sewn seams for durability
- Suitable for Selden, Z Spar and Sparcraft masts
- Easily delivered Worldwide
- Staggered batten ends top and bottom for easier reefing
- Sail automatically flattens when reefed
- Smooth furling
- Other cloth types available

DACRON

VEKTRON

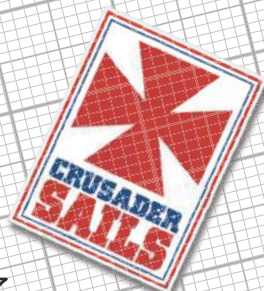
LAMINATE

STRETCH

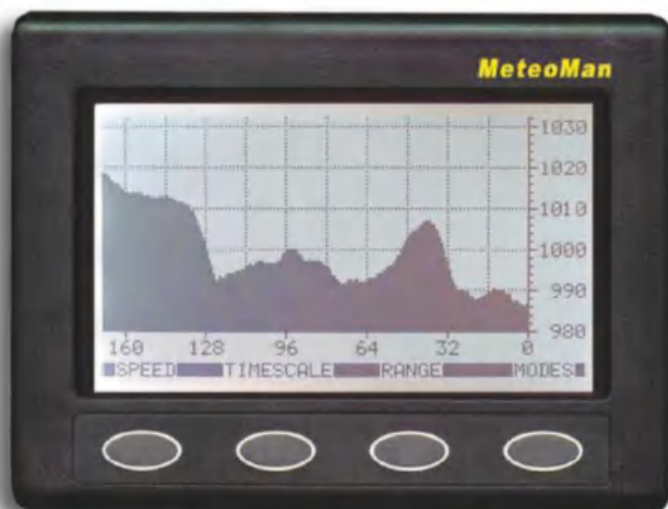
LOAD

Designed, cut and finished by craftsmen in our UK loft
PROVEN RELIABILITY AND PERFORMANCE

CRUSADER SAILS The Sail Loft Hatch Pond Road Poole UK BH17 0JZ
Tel: +44 (0) 1202 670580 E-mail: info@crusadersails.com Web: www.crusadersails.com



To sea or not to sea?



METEOMAN BAROMETER

Precision barometer provides an accurate, high resolution barograph recording in excess of five days data of barometric pressure

£145 inc vat



CLIPPER EASY NAVTEX

Easy it is to read new navtex receiver features big, bold characters and intuitive message formatting. Panel mounted and supplied complete with antenna

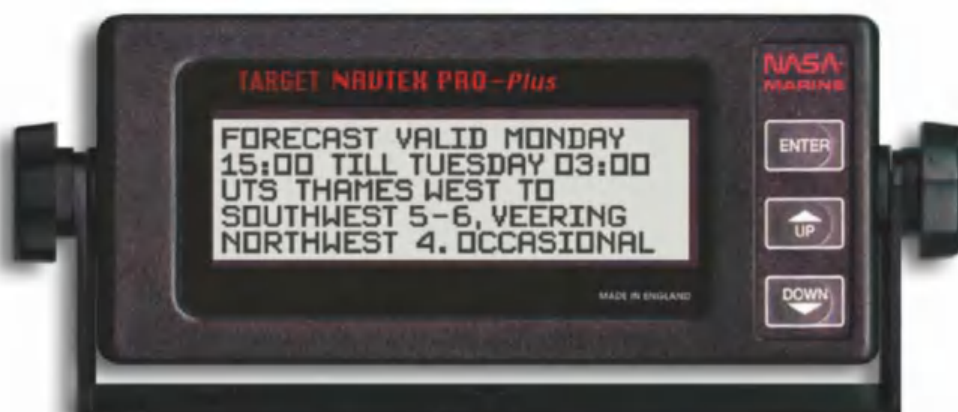
£285 inc vat



TARGET HF3/W SSB RECEIVER

Supplied with PC CD software to receive weatherfax pictures, RTTY forecasts from the German National weather service (DWD) and navtex. Also receives world service, marine net etc. Requires PC Win XP / 7

£235 inc vat



TARGET NAVTEX PRO PLUS V2

New larger text for easy message viewing. Cradle bracket mount 518 & 490kHz reception. Supplied complete with antenna

£247 inc vat



PC NAVTEX PRO USB

Receives and stores 518 & 490kHz navtex messages for later download to PC*
Supplied complete with CD software and antenna.
*Requires PC WIN 98 to 8

£135 inc vat

